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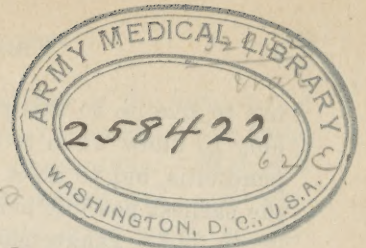
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MISTAKES IN THE TREATMENT OF ACUTE APPENDICITIS*

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One feels almost like apologizing for presenting another paper on such a familiar subject as appendicitis. The disease is so common, and has been discussed so frequently in this and other associations, and generally is handled with such success, that it seems that nothing more can be said. The average layman knows so much about appendicitis that often he makes his own diagnosis, and in many cases sends for a doctor, not to be treated, but to be operated upon.

And yet, not a week goes by but that we read of one or more deaths from this disease. Often the newspaper report states that the patient died not from appendicitis, but from the operation for appendicitis. In the vast majority of cases the profession knows that such a report is misleading. The patient did not die because of the operation, but because of the delay in the operation. It should be the duty of the publicity committees of the various county medical societies to inform newspaper editors of the danger of these false reports. The publication of such stories is one of the reasons why some patients hesitate to consent to operations which are imperatively necessary in order to preserve their health or their lives.

It is true that a few patients may die as a result of the operation for acute appendicitis, but the number of such cases is very small as compared with the number which die on account of deferring the operation

until it is too late. Suppose the newspaper told the exact truth and stated that "John Jones died from appendicitis because he was not operated upon until Tuesday morning, when his doctor advised him to be operated upon Monday night. If the operation had been performed twelve hours sooner, probably his life would have been saved." Such a report as this would have as salutary an effect as the evil effect which at present results from newspapers printing accounts of people dying from the effects of operations for appendicitis.

However, we would not care to have newspapers tell all the truth about our mortalities, especially if the autopsy findings were included. But in the case of acute appendicitis, it is rare that we would have occasion to be chagrined to see our results in print, provided we have advised the operative treatment as soon as the diagnosis is reasonably certain.

Delay in operating, then, may be considered the first great mistake in the treatment of acute appendicitis. The time to open the abdomen is at the beginning of the first attack. If this were done in every case, what complications would be prevented, what lives would be spared! Unfortunately, however, we do not always see the patient at this propitious time. But if we do, and we can exclude pneumonia, diaphragmatic pleurisy, affections of the urinary tract, and other things, let us remove the patient's appendix as promptly as possible, not waiting for an hour which will suit our convenience or our comfort.

We have all witnessed the outcome of fail-

*Read before the Medical Association of Ga., May 2-4, 1923, Savannah, Ga.

ure to live up to this rule, which means not only to know when to operate for acute appendicitis, but to do it. Even when done at the earliest possible moment, not infrequently we find a gangrenous or ruptured appendix. So the operation cannot be done too soon. Some operators do not think they have given the patient good service unless they can remove an appendix which shows marked pathology—gangrenous or full of pus. This is not the kind of appendix we should take pride in removing. Being able to demonstrate an appendix with the slightest amount of acute inflammation, with no complications, should reflect the greatest credit upon the surgeon. Then the wound may be closed without drainage, and the patient makes the speediest recovery.

If the patient is first seen as he apparently is recovering from the attack, it is well to postpone the laparotomy until the attack is over, providing he will have his appendix removed promptly at this time. Usually he does not carry out this agreement, however, but gets back to his business, and is unwilling to go on the operating table so long as he feels well. Then, when the next attack arrives and immediate operation is recommended, having recovered from the first attack without the aid of the knife, he calculates that he can do it again, and so refuses to submit to surgery. The patient may win out without surgical interference again and again, but any attack may prove to be the fatal, or near-fatal one, unless the operation is done. Such a history is the one which often results from failure to remove the appendix during the first attack. The patient refuses operation on the ground that he cannot spare the time from his work, but when he adds up the total time lost from several attacks he learns that the course he has pursued has cost him as many days, if not more, than the three or four weeks required to recover from an operation, not to mention the great risk which he has run.

But the patient will be seen later than the first few hours of the attack; he will be seen the second or third day, or a week later. It is still a mistake to postpone operation unless the condition of perforative appendicitis

with diffuse peritonitis is recognized. The patient then appears very sick. His pulse is 130 and feeble, and his temperature is 102 or 103. He vomits constantly, and has been given one or more hypodermics of morphia for the severe pain. He has an anxious, restless expression, and his breathing is rapid, short and shallow. The abdomen is distended, and the abdominal muscles are extremely tense, the knees being drawn up to relieve the tension. The tongue is thickly coated, and the edges are red in small spots. The patient is intensely thirsty, but is unable to retain the liquids given to him.

Patients presenting these symptoms have been operated upon under local anesthesia, with simple stab wounds for drainage, and have recovered. But usually it is a mistake to open the abdomen under such conditions. It is operating on a patient in severe shock, which is contrary to sound surgical judgment. Rather should one institute the conservative system of treatment advocated by Ochsner. Here the point cannot be too strongly emphasized that this picture is rarely the one which is seen by the physician who first attends the case. The patient has reached this state because surgical aid has not been invoked at the proper time, and because injudicious medical treatment has been employed, which means principally the administration of purgatives and food by mouth. Next to the delay in operating, the giving of purgatives and food before operating constitutes the greatest mistake in the treatment of acute appendicitis.

It is not the purpose of this paper to speak of mistakes in the technic of operating. It is difficult to state what such mistakes are. Various operators get equally good results by radically different methods. Some make one kind of incision and some another. Certainly an incision should be made which will give adequate exposure and ample drainage, if necessary. Some surgeons bury the stump and others do not. Manifestly infected stumps should not be buried and drainage should be provided in such cases. Some use one kind of drainage and some another. The best illustration of how a strikingly revolutionary method may attain satisfactory re-

sults is in the plan of Crisler of Memphis, who flushes his cases of general suppurative peritonitis with pints of 50 per cent tincture of iodine, taking care to see that the fluid is well massaged into every crevice of the peritoneum. Most surgeons would condemn such a procedure as this, yet competent witnesses declare that Crisler's mortality rate in this class of cases is lower than that obtained by other methods. His technic was followed in the case of a negro girl at the Grady Hospital recently, who was thought to be dying from general suppurative peritonitis, and she got well.

There are two other mistakes in the treatment of acute appendicitis which formerly were prevalent, but which riper experience has corrected. One of these is the administration of opiates before the diagnosis has been determined and the treatment settled upon. Very few practitioners are guilty of this error today. The other mistake is the persistent search for the appendix in a suppurative case, when it is necessary to do great damage to the tissues and possibly open new areas of clean peritoneum for further spread of the infection, at the same time needlessly prolonging the anesthetic and increasing the shock in a very sick patient. In the early days of the surgery of appendicitis it was considered absolutely essential to remove the appendix in every operation, at whatever cost to the patient. The surgeon must have something to show the patient's family after the anxious hour they have spent waiting to hear the outcome of the operation. Today we know that we save many lives by simple drainage of the area of suppuration, without any thought of removing the offending member. If it is easily accessible, and can be excised without increasing the dissemination of the infection and unduly lengthening the operation, well and good. Otherwise leave it alone. It may slough out. How often do we have to do an appendectomy later?

In conclusion, one of the prime objects of this discussion is not to call attention to any errors committed by the members of the medical profession in handling the everyday disease of acute appendicitis, but to call

attention to the mistakes of the laity in the preoperative or home-treatment. For these mistakes we are responsible. Women's clubs, parent-teacher associations, and similar organizations have heard much of cancer, tuberculosis and infant feeding during the past few years, but very little has been said about one of the commonest and most dangerous of all diseases, acute appendicitis.

Education on this subject is urgently demanded, and will materially lower our death rate from appendicitis, and shorten the number of hospital days of patients suffering from the disease. When a child or an adult is seized with abdominal pain, some one immediately remembers the article of food which is responsible for it, and begins to get rid of it by vomiting, purging and the use of enemata. If the attack is due to food poisoning, or indiscretion in diet, as it sometimes is, this treatment is to be applied, but if, as is often the case, the attack is the beginning of appendicitis, emesis and a low enemata are indicated; but the purge, by increasing peristalsis, adds to the mischief, and may be starting the patient toward a perforated appendix, peritonitis and death.

Let us teach the public, and mothers in particular, not to administer castor oil for every stomach-ache, and to refrain from giving food in the presence of continued abdominal pain. Let no doctor prescribe a cathartic for abdominal pain until he has seen the patient. A low enema is safe, and may give considerable temporary relief. Even the popular ice-bag may so mask the condition that a correct diagnosis may be delayed. The laity should know three rules for the home treatment of persistent abdominal pain, with or without nausea or vomiting:

1. Rest in bed.
2. Send for the doctor.
3. Absolutely no food or medicine by mouth.

The chiropractors broadcast their pernicious propaganda from the fountain-head of chiropractic through one of the finest radio outfits in the world. Would that our profes-

sion, through properly authorized agencies, possessed equal means for spreading honest advice concerning the prevention and cure of disease!

THE SUB-ACUTE ABDOMEN IN UN-RECOGNIZED TYPHOID FEVER

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Because of the comparative rarity of the disease in a general experience the surgeon may be caught unawares in the diagnosis of more or less acute abdominal complications resulting from the late and atypical manifestations of unrecognized typhoid fever and for this reason a report of two cases follows.

The problem of surgery in a frank case of typhoid fever admits of more easy solution. Yet in a careful history of these cases there was a break in the chain of evidence of the more common causes of the acute abdomen and this evidence failed of proper interpretation. In the first case there were high temperatures and low grades of leucocytosis but when later complications set in, as in the second case, these symptoms became reversed. In the second case no early records of history were available but in this case the physiognomy suggested a typhoidal type such as emaciation, coated tongue, verbal history of fourteen days of temperature, etc.

While seemingly isolated the environments of these cases had nothing to suggest as to the source of the infection and in both cases a tentative diagnosis of typhoid fever was primarily made and finally abandoned on account of the fact that there was no agglutination of the typhoid organism by the patients' sera. Examination of both bloods was negative for malaria.

Case No. 1

Case record No. 4673, a stout negress, age 27, married, was admitted to the hospital July 26, 1923 with a two weeks history of general pains, fever, vomiting and abdominal distension. On entrance her temperature was 102° F. and pulse varied from 90 to 120 with a certain amount of abdominal tension. The urinalysis was negative and leucocyte count varied from 5000 to 8000, sputum negative for tubercle bacilli, Widal negative, Wasserman negative and a film of the chest negative.

Fever persisted for two weeks somewhat irregular along with vomiting and resistance in upper right quadrant. Typhoid fever was suspected but these symptoms developing gradually in acuteness this tentative diagnosis was abandoned and an exploratory laparotomy over gall bladder region was decided upon with negative findings except for a mild form of appendicitis.

The temperature descended gradually but pulse and respiration became higher with increased abdominal rigidity for five days when an offensive discharge appeared at lower angle of incision. While eating lunch she had a choking feeling and died suddenly.

Autopsy findings were negative except for a perforated ulcer of ileum along with leaking multiple ulcers throughout the lower ileum and cecum. There were multiple strings of omentum attached to these ulcers thus indicating probably that a gradual detachment from ulcers had taken place.

Case No. 2

Case record 4740. A girl age 15 was sent to hospital from adjoining state August 20, 1923 with the diagnosis of probable appendicitis. History of family and previous illnesses was negative.

On inspection the facies suggested a suspicion of typhoid fever, such as emaciation, coated and dry tongue, a very faint pin point eruption, etc. The chief complaint, however, was given as abdominal pain which at first was ill-defined being attended by a low grade of temperature varying from 99 2-5 F. to 100 3-5 F., pulse 100 to 130. Ten days previous she had vomited but gave no history of cough, nose bleed, tympany or diarrhoea. In the last three or four days nausea and vomiting became more marked.

The abdomen gave an ill-defined resistance on palpation with no tympanities but next day showed a marked induration in the lower right quadrant. Urinalysis showed specific gravity 1022, acid reaction, moderate amount of albumin, no sugar and some pus cells. Leucocyte count first day was 23,000 and next day 26,000, Widal negative and x-ray plate of chest negative.

After forty-eight hours observation the diagnosis of a surgical abdomen was made probably due to an appendicitis or tuberculous peritonitis.

Operation: morphine-nitrous oxide, ether sequence aneesthesia with a right splint rectus incision revealed the presence of about 600 c.c. dark bloody serum, appendix and pelvic organs being negative. The lower twelve inches of the ileum were dark red and distended and two inches from the ileo-cecal valve a large necrotic mass of omentum was pasted to the ileum. After packing the peritoneum the mass was lifted out of the incision and the omentum was severed at a healthy point. This necrotic mass of omentum was tentatively separated with the expectation of finding a leaking ulcer which finally gave evidence of having healed. The area of ulcer was infolded by a Lembert suture. There being no evidence of other ulcers the incision was closed with a small rubber tissue drain to the pelvis.

Convalescence was uninterrupted and she was discharged from the hospital on the fourteenth day. There was every evidence to believe that this case would have died without operative treatment.

Conclusions

1. Low grade leucocytosis and high temperatures covering a period of days should provoke caution as to the diagnosis of an acute abdomen.
2. In the absence of such records and in the presence of increasing leucocytosis and the comparatively slow progress of ordinary symptoms of acute abdominal troubles, a surgical diagnosis should be approached conservatively.
3. A negative Widal reaction cannot be depended on to exclude typhoid infection.
4. While local and conservative in its nature typhoidal peritonitis may progress slowly to the need of surgical treatment and this need should be promptly recognized and met.
5. The striking value of the functions of the omentum especially in typhoid fever was demonstrated in these two cases in the manner of localizing infections in the peritoneum and in the second case the omentum protected healing of the ulcer but became infected itself to the extent of necrosis which was causing peritonitis.
6. The slowly developing acute abdomen with certain historical earmarks of typhoid fever furnishes a clinical identity which is simulated

by few other conditions and ample time is usually afforded for careful study.

7. While possibly not a determining factor it was a mistake to have abandoned the original diagnosis and to have operated in the first and it would have probably been fatal not to have operated in the second case.

RECENT ADVANCES IN GENITO-URINARY SURGERY AND SYPHILIS*

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In trying to select a subject to discuss before you on this occasion, we decided that it would be better to present a casual survey of the progress we have made in Genito-Urinary Surgery in recent years, rather than to devote the entire time to a single subject.

There have been no notable or outstanding advances recently. Our progress has been chiefly in refinement of technic and extension of ideas in the utilization of observation previously made.

Prostatic Surgery

In dealing with hypertrophy of the prostate gland and the consequent urinary obstruction, the general tendency continues to favor the suprapubic rather than the perineal route, and in doing the suprapubic operation to do it in two stages instead of a single sitting, especially for the border line cases where the age of the patient, the renal function, the blood chemistry and general health make it seem an average or poor risk.

It has surprised us to see how satisfactory the operation and subsequent health of these feeble old men may be, even when the pre-operative handicaps seemed unusually great.

There are several factors which play an important part in a successful result:

1. A careful study of the patient to ascertain with certainty that the urinary obstruction is due to the prostate and not to urethral stricture, to tabes or other spinal lesions. Further-

*Read before the East Tennessee Medical Association, Lenior City, Tenn., Oct. 11, 1923.

more, we must know that enlargement is not malignant, or at least not inoperably malignant. Every enlarged prostate, too, does not produce obstruction, while prostates which are not enlarged may cause it.

2. Equally important is the preliminary work to determine what the renal function is and to have the kidneys functioning at their best at the time of operation. This is best accomplished by keeping the urine alkaline in reaction, forcing liquids, attention to the bowels and the use of a retention catheter for a while if required. Hard and fast rules cannot be made which will enable one to say always with certainty that the renal and other functions are adequate for the operation. It is dealing with these border line cases that surgical judgment becomes quite as important as surgical skill.

3. The operation should be done with the minimum shock and in the shortest time possible with good work so as to require the smallest amount of anesthesia. Gas oxygen and parasacral anesthesia are preferred. Hemorrhage should be controlled at the time of the operation by ligation, packing or by the Hagner bag. Where the patient is, unusually feeble, transfusion should be done and repeated as indicated. A large drainage tube is used so as to provide against blocking with clots.

4. Post operative care does not include irrigations of the bladder which might disturb clots and increase bleeding. Alkalines such as sodium citrate in one drachm doses are continued after the operation. Liquids—coffee, tea and fruit juices, are forced. Morphine is given only when necessary and the patient is urged to avoid it if possible. The drainage tube is left in place for two or three days and then the urine is collected in the drainage device which I will show you. The patient usually leaves the hospital three weeks after the prostatectomy, even when there is a little urine still escaping through the small opening.

Bladder Surgery

It has been found that a very large portion of the bladder may be removed if necessary, with impunity, and the remaining part will gradually increase in capacity until the normal, or nearly normal, is restored.

The excision of Hunner ulcers is relieving patients of intractable and here-to-fore hopeless bladder symptoms. These lesions are characterized by a very small bladder capacity, constant and urgent desire to urinate, the passage of clear or nearly clear urine and the history usually of many years of suffering. They can only be diagnosed with certainty by a cystoscopic examination.

The use of the high frequency current still remains the method of choice in removing papilloma of the bladder.

For malignant growths of the bladder, the race seems about even between radium and the employment of diathermy, which is a massive cauterization, or cooking, with the bipolar high frequency current.

Renal Surgery

Ureteral catheterization, with a study of the separate specimens of urine, the utilization of the X-ray after a 12 or 15% solution of sodium iodide has been injected into the pelvis of the kidney, the passage of ureteral catheters impervious to the X-ray, the dilatation of ureteral strictures and the injection of germicidal solutions into the pelvis of the kidneys now enable us to recognize and to treat renal and ureteral diseases in a manner quite as exact as that employed in any specialty of medicine or surgery.

About 95 to 98% of small ureteral stones are removed without an operation, by dilating the ureter with large tapering catheters and by other cystoscopic manipulations.

Bacteruria

We are all familiar with the difficulty nearly always encountered in dealing with bacteruria when no definite lesion can be found, such as a diverticulum in the bladder and ureteral or renal abnormalities.

During the past year we have cured eight of these patients by applying a concentrated solution of silver nitrate to the verumontanum, through the endoscope. The exact manner in which such a procedure produces the good results we have observed we are unable to say, but as to its value in these patients we have been thoroughly convinced, because most of them had been treated by us for a number of years unsuccessfully by the usual methods. The im-

provement is noticable after the first treatment and the urine is usually clear after three to five applications. Two weeks are allowed to elapse between treatments.

Urethral Anesthesia and Adrenalin to the Verumontanum

At the last meeting of the American Urological Association, there was considerable discussion of local anesthesia in the urethral canal. Widely divergent opinions were expressed as to the value, danger, advantages, etc., of various anesthetics.

One point was not mentioned, however, which our experience during the past year has convinced us is of value, in the lessening of pain in doing cystoscopic examinations in male subjects and in applying nitrate of silver through an endoscope to the verumontanum. This point is to shrink up the verumontanum by including adrenalin chloride in the solution of the anesthetic injected through an instillator into the deep urethra.

For years throat and nose specialists have used adrenalin and cocaine in examinations of the nose to shrink the turbinates and thus provide a better view and more room for the application of the necessary remedies.

The vascular character of the verumontanum renders it particularly susceptible to the use of adrenalin, which makes it sufficiently smaller in size to lessen the pain and discomfort of cystoscopic examinations and applications of silver nitrate through the endoscope. Its highly sensitive nerve terminals are not pressed upon to the same extent when its mass has been decreased by the adrenalin. Furthermore, the bleeding which often occurs in the hyper-sensitive and congested verumontanum is definitely decreased and very little, if any, mopping is required and the time and pain are proportionately lessened.

Of course, adrenalin should not be used in case the diagnosis has not been made for the obvious reason that hypertrophy, abnormal hyperemia, etc., would not then be recognized.

The plan we follow is to inject a 1% solution of novocain, alypin, etc., into the anterior urethra and then clamp the meatus with an ordinary slide holder having rubber tubing over it to prevent discomfort from its grip. In a

few moments we then use a large instillator to carry the adrenalin, novocain or alypin solution into the deep urethra.

Ten cc. of a 2% solution of alypin or novocain, to which has been added 12 minims of adrenalin chloride solution, is then injected into the deep urethra as above described. The discomfort of a cystoscopic examination and the pain and bleeding from applications to the hyperesthetic verumontanum are definitely decreased.

No untoward results were seen in 375 instances where this procedure was employed.

A Modification of the Endoscope

We desire to demonstrate a modification of the endoscope which greatly facilitates endoscopic applications. It is so designed that an obturator is unnecessary. The ordinary sharp edges are blunt and rounded so that they do not damage the urethra while being introduced. By looking as the endoscope enters the deep urethra, the verumontanum is promptly seen and treated; urine does not have to be mopped away with coincident pain and delay.

The Demonstration of Prostatic Enlargement by X-Ray After Distending the Bladder with Air

Recently we have employed air injections into the bladder to outline prostatic enlargements and projecting snouts with such success that we desire to describe the technic and demonstrate a few of the plates. The plan is quite simple and easy to carry out. The patients take the usual preliminary dose of oil and an enema, omit breakfast, etc. A catheter is passed and then the patients turn face downward on the table. A rubber tube is then connected to the catheter and air is gradually pumped into the bladder until it produces a little discomfort. The X-ray is then taken in the axis of the pelvis. In this manner the bony structures are missed and a better outline of the prostate is obtained. Information of considerable value is thus obtained. We do not advise that all patients should have such an examination, but only when additional facts are required.

Air, oxygen, etc., have been used heretofore in demonstrating the size of tumors of the bladder, sacculations, etc., but we have not seen a

report of prostates being shown in the manner just described.

The Development of Subnormal Genitals

A much neglected field in medicine or surgery is the proper attention and advice to adolescent boys and young men regarding the development of their genital organs, when subnormal.

The under developed may receive great benefit by the administration of the glandular extracts which seem indicated for them after a careful examination and by mechanically distending the corpora cavernosa with a vacuum device, twice a week. Applying the vacuum to the testicles also appears to stimulate the production of the internal secretion by the hyperemia produced.

We will show some lantern slides which will demonstrate what can be accomplished. Unfortunately we have no photographs of our early cases in which excellent results were obtained.

Bismuth in the Treatment of Syphilis

A decided advance has been made in the treatment of syphilis during the past year. French syphilographers have shown that bismuth salts are among our best antiluetic remedies. When these observations were first made, we were unable to secure the preparations they were using so we did some experimental work with the salicylate of bismuth, which we have since used extensively in the routine treatment of syphilis during the past year. The results have been so satisfactory that we think it ranks second only to the arsphenamines as a spirocheticide.

It is relatively non-toxic and very little pain is caused by the intra muscular injections, which are given every three to five days in courses alternating with arsphenamine, mercury, etc.

In some cases it appeared to be more efficacious than arsphenamine and was better tolerated. It is decidedly more curative than the salicylate of mercury and much less painful.

Salicylate of bismuth is especially indicated in those patients who have failed to respond to the usual treatment with arsphenamine and mercury and those who have a Wassermann fast reaction.

The toxic effects are shown by a bluish deposit in the margin of the gums. This requires a rest in the bismuth treatment until the gums are again normal, much as we manage the treatment with mercury.

THE ELUSIVENESS OF CHRONIC MALARIAL INFECTION*

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The distinction between acute and chronic malarial infection is more or less artificial—that which is regarded as the acute being more manifest symptomatically and more paroxysmal in type, while that which is accepted as chronic is lacking in symptomatic manifestations as compared with the paroxysmal type; but when the manifestations DO occur (in chronic cases) they are often so atypical of malaria (as it is generally recognized) that they appear many times as a condition distinct from malaria, and, in absence of laboratory confirmation, are accepted as such even though there is a singular cyclic behavior of these atypical signs and symptoms which are comparable in a degree to the more clear-cut, periodic manifestations and paroxysms of the acute form.

Malaria, according to type, may on one occasion be the simplest of diseases to diagnose, but on another it may be one of the most difficult—and sometimes impossible to diagnose at all, though present. Both the simplicity and the difficulty of diagnosis may be illustrated by the fact that the condition has readily been recognized, in known instances, before the arrival of the physician by an ignorant plantation negro; while on the other hand, with the disease constantly in mind and the manifestations of morbidity carefully weighed, with every laboratory aid, and with capable, zealous consultants, the disease was not recognized early as such. Proof of failure to recognize the morbid condition at first as malaria was that, at a later date, the atypical symptoms as had previously appeared, became more emphasized, clear-cut and characteristic of malaria; and the renewed efforts by

*Read before the Davis-Fisher Sanatorium Staff, monthly meeting Sept. 10, 1923, Atlanta, Ga.

laboratory tests to bring the parasites into evidence were rewarded by revealing the organisms present in the blood smears, there having been neither opportunity nor time enough for the infection or reinfection to occur in the interim and resolve itself into such a chronic process.

I prefer to use the term "eradication" rather than that of "cure." In many sections there is a disposition not to regard individuals as malarial unless the condition is characterized by fevers, sweats and chills; and, in many instances, even in those cases evinced by fevers, sweats and chills, the patient will not lend himself to treatment beyond the paroxysmal stage but will desist as soon as there is a cessation of pronounced symptoms and the restoration of a sense of well-being, whether it be measured in days or months. This attitude alone defeats the effort toward eradication—and eradication cannot be determined simply by failure to demonstrate the organisms in the surface capillary blood. Many times insufficient treatment, not effecting eradication, renders it impossible to demonstrate the plasmodium malariae in the blood,—though they may be present in the spleen and in other deep organs and structures, to be actually demonstrated in the surface capillary blood at some future time. This partial or incomplete treatment is a strong factor in producing elusiveness.

The almost universal and frequent use of salts of quinine in the so-called "cold-remedies" for acute colds where malaria is present but not suspected may, in a measure, render the parasitic forms less numerous and more or less atypical, if not suppressing their appearance in the surface capillary blood altogether. Similar results may obtain from the universal use of empirical anti-malarial measures in the treatment of acute and chronic malaria. Such empirical treatment of acute and chronic malarial infections is a very strong factor in masking the evidence of plasmodium in the red blood cells and causes the parasites to disappear from the red blood of the surface capillaries and to appear as if eradication were complete—if judged from the red blood examination alone,—thus confounding a temporary disappearance with complete eradication. Each case of acute or chronic malaria is a law unto itself and should

be treated as such; for no one line of universal empirical treatment will ever accomplish anything but disastrous results, and will be the wholesale cause of delay in the discovery of better agents and measures in combatting this elusive and obstinate infection.

With our present limited methods and measures as used in diagnosis and in the check on after-treatment, I do not believe it is humanly possible to tell with ABSOLUTE CERTAINTY when complete eradication is secured in a single case without a long period of observation, and even THEN the physician is not safe in pronouncing complete eradication but should be constrained to say, even though supported by every negative finding, that there is "NO EVIDENCE" of the infection persisting; for symptoms and signs coupled with positive findings may, months later, necessitate the physician's contradicting his previous statements to the patient.

Iron, quinine and arsenic have long been regarded as specific. My attitude is that they are NOT specific but are the very best agents that we have up to the present time, though their action is often slow and uncertain.

We frequently read of eradication in 90% of the cases being secured by the employment of empirical measures, even in cases taken indiscriminately. My attitude again is that such empirical line of treatment as is sometimes advocated will do well to secure 10% absolute eradications rather than the higher percentage; and even this lower percentage can be claimed only when, after months and even years of protracted observation, no signs or symptoms of the chronic malarial infection are evident or that the chronic malarial state persists. Then, and then only, can complete eradication be claimed. Such failure to secure complete eradication of the chronic malarial infection or abolition of the chronic malarial state simply adds one or more elusive, atypical case of chronic malaria to puzzle some one down the years and wind up with the arthritides, neuritides or other sequelae of a too-late recognized case.

I believe that chronic malarial infection is so elusive, insidious and tenacious that the person is not living to-day who can unerringly tell when complete eradication has been secured

in a single case unless there follows a very long period of observation—and then there exists opportunity for deception. So elusive do I consider this condition that, after a careful examination of a patient, with due consideration to the great prevalence of malaria over such wide areas, I make it a rule not to inform the patient that he has “NO MALARIA”—based on one or a number of negative findings—but, instead, tell him that I find “NO EVIDENCE OF MALARIA,” taking particular pains to differentiate to him between the report “NO MALARIA” and “NO EVIDENCE OF MALARIA,”—explaining at the same time that subsequent tests may be necessary if cyclic signs or symptoms recur, negative findings simply meaning “NO EVIDENCE OF MALARIA” but not “NO MALARIA”; for in similar cases, later, I have found the parasites present where previously there was no evidence of any, when the signs and symptoms certainly could not have been regarded as characteristic of malaria. It has been my experience that the parasites are more often ABSENT from the surface capillary blood in direct proportion to the degree of chronicity of the process than PRESENT. This conclusion is reached through eliciting clear-cut, connected histories; through recurrent signs and symptoms; by the establishment of the presence, at times, of malarial parasites by actually finding them in later examinations of smears; and through some satisfactory end-results following therapeutic tests and appropriate treatment in line thereof. We are sorely in need of some measure by which it can be accurately and positively determined when the infection is present and when complete eradication has been secured. We certainly have no such measures at the present time; and, I repeat, we must stand by the clinical signs and symptoms over protracted periods of observation; and even where there are no signs or symptoms we should not say “NO MALARIA,” but rather “NO EVIDENCE OF MALARIA.”

The elusiveness of chronic malarial infection is an ally to its insidiousness, often producing grave anaemias or other sequelae before the actual state is recognized; and with some supervening infection such as influenza the condition too often resolves itself into an active,

flashing tubercular process. On account of its elusiveness, insidiousness and tenacity together with its capacity for such extensive crippling of individuals and abbreviating of human lives with such relentlessness, this peculiar behavior, from the standpoint of malignancy, places it in a class with tuberculosis and syphilis.

The ignorance of many individuals and their indisposition to apply early for examinations and treatment are added factors in producing elusive cases. Much additional knowledge could be gained from the doubtful, indeterminate cases which end fatally, if autopsies were secured in those instances in which, during life, sufficient evidence had not been found to indict the plasmodium malariae. I find that the splenic index, even in the very emaciated, is a very unreliable diagnostic sign, though occasionally it is an invaluable aid.

The ruddy-faced, fat, well-nourished, strong-looking individuals are especially apt to deceive the examiner, as they so frequently, on first examination, give negative blood findings as to the presence of plasmodium in the red blood, with little or no disproportion in the ratio of the white blood in the differential count.

No satisfactory explanation has been advanced for the elusiveness of the parasites in the surface capillary blood in infancy, early childhood, or in old age. Certainly the factors producing this elusiveness are not the same in the infant and young child as in the aged, for the opportunity for long years of infection to influence toward negative findings in the infant and young child is certainly not presented. Perhaps the more exalted condition of the blood in infants and children works to reduce the infection in the surface capillary stream. There is some subtle, elusive principle which we, as doctors of medicine, must at some time determine in order to explain why, when the parasites are so elusive, atypical or absent altogether at times from the surface capillary blood, that the work of crippling individuals is so sure and progressive. It appears to be potential for greater harm when, from the examinations of the smears, the forms are few, atypical or inconstant. I have found in the long-standing, elusive, chronic malarial processes,—where the organisms are few in number, atypical in form

and difficult to demonstrate—that the process is working for greater harm to the organism of the individual.

Factors conducing to the elusiveness of the parasites in examinations are: observance of the laws of good hygiene, an orderly existence, a temperate life, vacational trips to or abode in higher altitudes or more northern latitudes, good appetite, abundance of good, wholesome food, good digestion, cool weather and Fall and Winter seasons.

Sometimes the presence of a highly inflammatory process or of abscess formation will render it less easy (if not impossible) to demonstrate the parasites of malaria until subsidence of such processes, as it certainly affects the white blood differential in the chronic malarial cases when present. On the contrary, poor hygiene, under-nourishment, starvation, permanent abode in lower altitudes or lesser latitudes, dissipation and stress of work—both mental and physical—excessive hemorrhage, shock of surgical operations, normal parturition (and more frequently the difficult cases) and occasionally removal from a lower to a higher altitude coincident with marked physical improvement without the suppressing influence of medical measures may cause the parasites to appear in the surface capillary stream, temporarily or persistently. In those cases influenced by removal of the individual to a higher altitude, the parasites may appear—though they were not demonstrable in the lower altitude—and later through medication and additional physical improvement disappear again; then, later, while still in the higher altitude, with no recurrence of signs or symptoms of the chronic malarial infection or of the chronic malarial state or of any of the sequelae, the parasites, even with continued treatment, MAY appear again and persist until finally eradicated.

We must not make the mistake of accepting negative laboratory findings for malaria as final in the face of positive clinical signs or symptoms to the contrary that are convincing, for by so doing we render an already too elusive morbid condition doubly elusive. The practice of medicine will always be an art rather than a science, and regardless of how valuable laboratory work and reports may be as an aid in diag-

nosis (and we do heartily welcome such aid) they must never be accepted as making the diagnosis, no matter how carefully conducted they have been; for in the presence of one or more outstanding absolutely positive clinical signs the negative laboratory findings fall flat and must be thrown into the discard. All the laboratory apparatus collected to the present day with the most thorough understanding of its application and use will not convert the practice of medicine from an art to a science. We must ever be ready to disregard findings of negative value when in conflict with clinical signs and symptoms of a positive nature. Chronic malarial infection is one morbid condition where too strict adherence to negative findings by ultra-scientific methods will work disaster to the patients—and it is in the interest of the patients that we are working.

Acumen and experience until the end of time will prove the most valuable assets in the diagnosis and treatment of morbid conditions. Through its elusiveness and insidiousness chronic malaria is abbreviating countless lives, many of whom are too useful to their community to be sacrificed so prematurely. The chronic cases, dying by degrees, are accepted with a certain degree of inevitability, but they are lost to us none the less surely and prematurely.

If we could sufficiently arouse a national and international public health conscience and work progressively for the elimination of the specific infections of malaria, tuberculosis, syphilis, gonorrhoea and the parasitic infestations, it would aid in making this world of ours a more healthful place in which to live. This, of course, can only be accomplished through universal co-operation by preventive measures—and preventive medicine is our goal.

THE ROLE AND THE INDISCRIMINATE USE OF THE PURGATIVE*

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I have conceived my idea of the use and abuse of the purgative from my own personal observation and the observation of others, together with some little research work on the subject. I am not writing this paper with the

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idea that you are going to agree with me entirely.

We will first take up the role played in a general way by one of the most commonly used purgatives in modern medicine. Dr. Hare, of Jefferson Medical College, said "If there is one point firmly fixed in the minds of the average practitioners of medicine, and I will add, of the laity, it is that the mild chloride of mercury *increases* the flow and quantity of bile in the intestines."

If such a believer is questioned as to how calomel acts, he will either say he can't answer, or that it stimulates the liver or biliary gland to an increased production of bile. This is practically the position taken by the profession in general in regard to the purgative influence of calomel. Experimentations upon the lower animals and even on persons, made by several competent observers and physiological chemists, have failed, however, to throw much light upon the subject sustaining this view.

On the contrary, Rutherford and Vignal have proven that calomel, although producing purgation by increasing the secretion of the intestinal glands, in no way increases the secretion of bile.

Quite a number of physicians have studied the effects of the various so-called chologogue drugs upon the flow of bile in human beings who have had biliary fistula. Perhaps the best studies of these are the writings of Pfaff and Balch, and more recently, those of E. P. Joslin of Boston, dealing with women who have biliary fistula. Calomel and the bichloride of mercury, invariably, according to their findings, *decrease, rather than increase* the biliary flow. Oxgall was the only drug which did serve to increase the flow. The false impression that calomel increased the flow of bile was undoubtedly suggested by the spinach-green color of the stools after the administration of calomel. It is now a proven fact that this greenish effect is due, not to an increased flow of bile as formerly believed, but from the fact that the bile is prevented by this drug from decomposition in the intestine.

Most commonly, this is decomposed by the microbes in the intestines, with the formation of fecal pigment, but mercury prevents by its

antiseptic properties the growth of the microbes and the bile therefore appears in the stools having its ordinary or original color. It is true that so-called biliousness is very frequently relieved by mercurials, but this is readily explained by the fact that this condition is one not dependent upon the liver, but is dependent upon a disorder of the alimentary tract. Where the good effects of mercury were supposed to be due to its power to increase the flow of bile, equally satisfactory results may be obtained by the use of other remedies, not regarded as chologogues.

Now, as to the role of some of the other purgatives or laxatives. Castor oil is non-irritant to the stomach, but when it reaches the intestines, it is decomposed by the digestive juices and the recinoleates thus formed are irritant and cause purgation. Castor oil is a little slow about acting, taking about five hours. The stools from it being soft and not liquid, it rarely causes griping, and is therefore an almost perfect evacuant.

Magnesium sulphate, as you know, produces purgation by extracting fluids from the walls of the intestines, and by its somewhat irritant effect, acts similar to jalap, and due to this fact can be used to a good advantage in dropsical conditions.

Podophyllin is the slowest acting purge official in the Pharmacopoeia but in suitable doses is too drastic to be favorably considered. This takes up the action of the most commonly used purgatives, laxatives, or evacuants, in a general way and this paper will not allow me to go into details, but it sifts itself down to the fact that any purgative is only an *evacuant*, some being more drastic in action than others. If this be the case why should we prefer one purgative to another, except that one might be more pleasant to take than the other, or that one might do more systemic damage than another.

Every time a purgative is given a patient more or less damage is done, and calomel does more damage than any other of the purgatives, and this is proven from the fact that from overdose or idiosyncrasy a patient will become salivated from its poisonous effects. Salivation to my mind is a very serious thing, destroying the health of as many people as whiskey does.

It should be just as important for life insurance companies to inquire if the applicant has ever been salivated as it is to ask if the applicant has ever taken strong drink to excess.

We will now take up the indiscriminate use of the purgative. There never has been anything more overdone in any walk of life than the administration of purgatives in the general practice of medicine.

The following is a very broad statement to make, but I am going to make it regardless of criticism. There never was but two reasons for giving a purgative and they are, first, either to relieve a dropsical condition, or, second, to evacuate the bowel of decomposed food matter or a foreign body. Practically all the laymen and a great many of the practicing physicians believe that there is some *mysterious, almost divine*, action in purgatives and more especially in *calomel*. They will tell you that it will "*dynamite the liver*." I have heard this until I am sick and tired of it. Salts or oil will "*dynamite the liver*" just as well as *calomel*. Ah, you will probably say that I will have to admit that better results can be obtained from *calomel* than from the other drugs of a purgative nature, and this I will admit, with the reservation, however, that if you give other purgatives an equal chance with *calomel* you will get equally as gratifying results. We all know that it is common practice to take salts or oil before breakfast and then eat an enormous meal immediately, and then wonder why it later caused constipation. Doctors even prescribe large doses of salts, oil and the like in this manner, or a small dose just before or after each meal, which is nothing less than the blind leading the blind. When you give a purgative you do nothing more nor less than apply the lash to an old, feeble, worn-out, overworked, and exhausted mule to make him pull a load which he otherwise would not budge. Now, what is the next most sensible thing to do after the load has been moved from its place and disposed of? Overload him again as quickly as we can, and again have to apply the lash? No, the next thing to do is to give him a rest. Our patient's intestines should be given a rest also after the load has been moved. That is why the purgative leaves him constipated. The intestinal tract can not

pull an overload in its exhausted condition. It must rest some first. This is the reason people get better results from *calomel* than from other purgatives, and many will tell you that it will not leave you constipated like oil or salts. They are afraid to eat a large meal immediately after the *calomel*, and in fact will not eat anything until after they have "*worked the calomel off*" with salts, thus giving the intestinal tract a small time to rest, at least, before loading it again. Most people, doctors not excepted, think that they have to take their weekly, monthly or annual dose of *calomel* to keep from becoming "*bilious*." Right here let me say that there is no such thing as "*biliousness*."

It is only a choking up, so to speak, due to the fact that the stomach has been overloaded and the eliminating power of the intestinal tract is over taxed to such an extent that it fails to keep up with its work. A choking takes place and naturally the whole system absorbs a portion of the toxins made in this wonderful laboratory of decomposing food stuffs. One of the toxins, it has been proven, acts similar to curara, which is the poison that the cup of hemlock was supposed to have contained which our old martyr drank. No wonder we suffer when we are in this condition. This choked up condition naturally, in a mechanical way, hinders the outflow of the bile, but it is not at all necessary to give a cholagogue purgative; the thing to do is to give a *fecalogue* purgative at once and then let the tired gut rest, and the liver and its bile will take care of itself. After you have the intestinal tract empty, do not just keep on giving purgatives, unless you are continuing to overload the stomach. I know some doctors who will give a large dose of *calomel* every day for a week or two, at the same time feeding their patient on nothing but thin chicken water or broth, which is almost no food at all. I venture to say that you could take any person in the very best of health and give him a large dose of *calomel* every day and it would kill him in less than six months.

In conclusion I want to say that the point I wish to make is to never overload and you will never have to take a purgative unless to remove a foreign body. In the case of overloading, it will not be necessary to take a purgative

even then if you will merely stop eating until the guts can catch up with the mouth.

Remember, it is not what you eat so much, but the amount you eat. It is just as reasonable for persons to live their life through without a purgative as it is for any of the lower beasts rightly fed. If you must give a purgative, please give a big one of the simpler kind, and then when the intestinal tract is empty, give no food whatever for 12 hours. Then give a broth for 18 or 20 hours more, when a light food can be used and increased as the time goes on. This will apply in any case, at any time and in any condition.

SURGICAL CONDITIONS CAUSED BY INTESTINAL PARASITES

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My attention was called to this subject by the occurrence in my practice of two cases: One, a case of acute appendicitis apparently caused by the oxyuris vermicularis; the other, a case of cholelithiasis and choledocholithiasis complicated by the presence of an ascaris lumbricoides in the common duct. This case was reported to this society on August 2nd, 1917. A more detailed report of these cases follows:

Case I. M. A. White, age 8 years, father died of diabetes, age 35, mother living and well, one sister and one brother living and well. On November 15, 1922, began to complain of pain in right lower abdomen. This increased until Nov. 18th, at which time her temperature had gone to 104½. Dr. B. T. Beasley was then called to see her and made a diagnosis of acute appendicitis. I was called in consultation and concurred in the diagnosis, though one classical sign was wanting, that of nausea with vomiting. However, one pain on pressure over McBurney's point was so intense and the muscular rigidity so marked that an immediate operation was thought advisable. She was sent to the Georgia Baptist Hospital and a urinalysis and blood examination made, the result as follows:

Urine

Color—Straw.
Cloudy.
Sp. gr.—1020.

Albumen—one plus.

Sugar—negative.

Indican—trace.

Microscop—occasional hyaline, cast some mucous, occasional pus cells.

Blood

Hemoglobin 80%.

Leucocytes, 12,000.

Poly's. .80.

Small mon. .16.

Large mon. .04.

No malarial parasites.

Under ether anesthesia the appendix was removed through a right rectus incision. It was found to be long, hard, and actually inflamed. The wound was closed in layers, and healing was uninterrupted. She was discharged as cured on Nov. 25, 1922.

The pathological report made by Dr. A. H. Bunce was as follows: "Appendix 7½ c. m. by 5 m. m., long, narrow, rounded and worm-like in appearance; marked thickening of mucosa, sub-mucosa, and muscularis. Lumen empty except for a mass of small, whitish, worm-like particles. Diagnosis, acute appendicitis, oxyuris vermicularis, (ova and parasites in appendix).

Case II. Mrs. B. B., Winston, Ga., referred by Dr. W. K. Burnett. Adult, female, age 30 yrs. Briefly she gave the following history: For several years had suffered pain in the region of the gall bladder. At times she was jaundiced and attacks of nausea and vomiting recurred at intervals. I was called to see her during July 1917. A distinctly palpable mass the size of an orange could be seen to move up and down with the liver on respiration. A diagnosis of "obstructive jaundice with probable gall stones" was made. She was sent to Wesley Memorial Hospital of this city and on July 30, 1917, was operated upon under general anaesthesia. A cholecystectomy was done and fifteen stones about 2 c. m. in diameter were found in the gall bladder. Three stones of the same dimension were impacted in the common bile duct. When a longitudinal slit was made over these stones, one end of an ascaris lumbricoides pointed up through the incision. Dr. C. E. Waits, who was assisting me, caught it with a pair of forceps and pulled it from the duct duodenum. It

measured about eight inches. The stones were removed from the common duct and two fine catgut sutures approximated the incised edges. A small cigarette drain was left in for three days and an uneventful recovery ensued. One interesting occurrence happened that was easily explained after the worm was found. While sleeping quietly the night before the operation she screamed with sudden pain in the gall bladder region. This was supposed to be when the ascaris attempted to pass the impacted stones in the common duct.

In order to show that these cases are not rare for this section I have interviewed some of the surgeons of Atlanta during the past week and asked permission to quote their findings. The following surgeons reported having found oxyuris vermicularis in varying numbers in the lumen of appendices after removal. Dr. C. W. Roberts, two cases; Drs. M. T. Benson, G. P. Huguley, and Floyd W. McRae, Jr., each one case.

Were these pin worms the primary cause of this pathology or were they only incidentally present? To answer this let us consult records where careful pathological examinations have been made. Quoting from an editorial in the *Journal of A. M. A.*, Jan. 27, 1923, "Intestinal Worms and Appendicitis. In Germany, Rheindorf has conducted studies leading him to the conclusion that oxyuriasis or infestation with the common pin worm, *oxyuris vermicularis*, assumes by no means a negligible part in the genesis of many cases clinically recognized as appendicitis."

Noack has carefully examined the appendices of a number of patients on whom extirpation of the organ was carried out. In nine out of fifteen cases taken at random from the experiences of a large surgical clinic, pin worms or parts of pin worms were discovered on careful microscopic examination of the removed appendix.

In the *American Institute of Medicine* for Sept. 1921, page 1050, we find the following report of a case by J. Weigmann, *Berl. Klin. Wchnschr.* 58:732, July 4, 1921. "A boy six years old had suffered from worms for several years and had been unrelieved by medication. A few days before admission violent pains were

felt on micturition and defecation. Examination showed numerous living oxyurides in the anus and vicinity. About 2 c. m. from the anus on either side was an inflamed swelling easily movable and fluctuating. It was incised. Thin pus, containing live oxyurides, was obtained from both tumors. The walls of the abscesses also contained worms. Sounding gave no evidence of fistula from the abscess to the lumen of the rectum."

Let us again turn our attention to the ascaris lumbricoides. For the incidence of this parasite as well as the oxyuris, the general practitioner could no doubt give more accurate data, but it has been encountered surgically so often that its presence whether causative or accidental cannot be overlooked. In cases diagnosed as appendicitis, either acute or chronic, it has been found in the appendix by Drs. H. R. Donaldson, Frank Eskridge, L. W. Grove, E. C. Davis, J. D. Manget, and B. H. Wagnon. In appendiceal abscesses by Drs. E. D. Highsmith, F. K. Boland, and M. T. Benson. Certain points of interest were present in each of the abscess cases. Dr. Highsmith's case contained a long round worm that was dead and had a single knot tied in about the middle of it.

Dr. Boland's case (reported in the *Journal of the Medical Association of Georgia*, December 1920), contained four live worms coiled in a mass around a suppurating, ruptured appendix.

Dr. Benson's case had had an operation in another city of Georgia for appendiceal abscess. The patient, a young lady, did not know whether her appendix was removed or not. Two years later another abscess formed and when opened two live worms were found in the abscess cavity. The wound was again drained and the appendix not looked for. Recovery ensued.

The literature of this country as well as abroad abounds in reports of this parasite being found in every available outlet from the alimentary canal, including the Eustachian tube, nares, trachea, the liver and pancreas with their ducts. Not only does it at times invade every opening from the intestinal tract, but its larvae have been found encysted in almost every region of the body. This, at first thought, seems strange, but when viewed in the light of modern research, appears as a natural consequence.

Again quoting from an editorial in the *Jour-*

nal of A. M. A. January 13, 1923, page 112, "Until recently the life history of the eelworm, *ascaris lumbricoides*, in man was believed to involve no intermediate host, and was usually stated to indicate a comparatively uncomplicated sojourn in the organism. The assumption was that when the developed eggs are swallowed the embryo develops directly to the adult stage. The habitat of the parasite in its various stages of development was supposed to be the alimentary tract. Through the more recent investigations of Stewart, it has become probable that *ascaris* cannot develop continuously and directly in the intestine of the host. The evidence secured in experiments on animals indicates that the larvae can and often do penetrate the intestinal wall, ultimately finding their way to the lungs. From there it is a short step for them to reach the esophagus and thus be returned to the intestine.

"The outstanding fact in the recent studies is the early appearance of larvae in the lungs and the small numbers in remote organs such as the spleen and kidneys, in experimentally infested animals. The indication that something similar occurs in human cases of ascariasis is afforded by the somewhat heroic experiments of Koino of Tokyo on men. After he himself had swallowed two thousand mature eggs of *ascaris lumbricoides*, the human parasite, and another person had ingested the eggs of the pig *ascaris*, *ascaris suilla*, symptoms attributable to larvae migrations as in experimental animals occurred in both cases. There were headaches, fever, respiratory difficulties, and other untoward results. Pneumonia ensued, and larvae were found in the sputum. The human host proved unfavorable for the pig parasite."

I have incorporated the above editorial almost in toto for I felt that it gave a more graphic description of the *ascaris* migrations than any language at my command.

Occasional reports of deaths due to the *ascaris* occur in medical literature. These appear more frequently when *dead* worms are found. The frequency of this occurrence leads one to the conclusion that whatever toxins are derived from the *dead ascaris lumbricoides* (and there have been two described, one soluble in water, the other in alcohol) are more poisonous to the human host than those contained in or secreted

by the living worms. Consequently vermifuge remedies may be more rational therapeutics than vermicides. In cases of internal obstruction and strangulated hernia where worms have been found they are often clumped into masses and often intertwined about one or more of their own dead.

If by citing these cases, and quoting these paragraphs, I have succeeded in impressing the importance of waging an unceasing warfare on intestinal parasites in the human host, I believe the internist, the surgeons and specialists as well, will see fewer results of their depredations. This warfare cannot be carried on by the physicians alone, but only by educating the public to the dangers of harboring so-called "harmless parasites," that a "wormy" child is at least worth as much as a "wormy" pig and should be given as prompt attention!

And if worms must eventually devour our earthly remains, let it at least be postponed until "dust to dust returneth!"

X-RAY A VALUABLE AGENT IN THE TREATMENT OF SKIN DISEASES*

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The ever increasing knowledge of the possibilities and limitations of X-ray and the improvement in technic, so that it can now be given with the same amount of accuracy as any other therapeutic agent, make it possible to treat many conditions that formerly were not amenable to this valuable agent.

McKee states that Roentgen Therapy can be divided into three eras; optimistic, pessimistic and realistic. This has been true with me; when I began the use of X-ray, I was very enthusiastic, but my enthusiasm soon waned only to be revived with the advent of the Coolidge tube and modern transformer.

It is a well established fact that small doses of X-ray will stimulate cell growth while larger doses will destroy. It also has selective action on cells of lowered resistance such as inflamed and glandular tissue, new growths such as epithelioma, carcinoma and sarcoma. X-ray is not parasitocidal but when given in proper dosage will change the tissues of the skin so

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that they will have more resistance to all pyogenic and parasitic organisms. Knowledge of these facts enables us to intelligently treat with X-ray many diseases with benefit that otherwise could not be treated.

The use of X-ray in the treatment of cancer is well established but it is not my purpose at this time to discuss malignant conditions. I shall only mention a few of the commoner skin diseases most frequently seen in this section for which X-ray is used with benefit.

In the treatment of *acne vulgaris*, X-ray in a large number of cases is superior to any lotion or salve of which I have knowledge. It is not necessary or advisable to treat every case of *acne vulgaris* with X-ray, for in some acute cases medicinal and hygienic measures are sufficient.

X-ray is of very little value in the erythematous type, which is caused as a rule by some menstrual disturbance. Also it is of very little value in cases that are very toxic from infected tonsils, chronic appendicitis, intestinal toxemia or any other focal infection, unless the condition causing the toxemia is removed before or while treatment is being given. In cases in which the toxic and other aggravating conditions have been corrected, results from X-ray are obtained only as long as these predisposing causes are corrected, with the return of these conditions *acne* often returns. Patients who have the chronic type of *acne*, with oily skin and who are apparently in good health receive the most lasting results from X-ray treatment.

In *acne* the sebaceous glands are the structures of the skin primarily involved and the effect of X-ray is due largely to the effect it has on these glands. A sufficient amount of X-ray should be given to decrease the size and activity of these glands without affecting the texture of the skin. The quantity of X-ray I usually give is one-fourth skin unit every seven days until eight to ten treatments are given or until lesions disappear. I find in *acne indurata* by using filtered X-ray as recommended by Witherbee and Remer, the results are better than when no filter is used.

In the past five years I have treated three hundred eighteen cases of *acne vulgaris* with X-ray. Fifty-six of the cases discontinued treatment before sufficient amount had been given to see results. One hundred four cases received from four to six exposures and the majority of these showed marked improvement. One hundred fifty eight cases received eight or more exposures and in these, results were very satisfactory with the exception of an occasional small lesion all were apparently cured.

In *rosacea* many of the predisposing causes are present which are found in *acne vulgaris*, and the correction of these causes is of first importance, to get the best results from X-ray. In the treatment of *rosacea* with X-ray all types are benefited. The best results are obtained when it is used early in the disease and in cases which have *acne* form lesions with an oily seborrheic skin. The majority of cases of *rosacea* will tolerate more X-ray than will *acne vulgaris*, and as a rule, the same technic applies.

Sufficient number of treatments should be given to lessen the activity of the sebaceous glands, clear up the papules and pustules and remove the hypertrophy when present. X-ray, as a rule, should be discontinued in cases which do not show some improvement after eight to ten fractional doses.

In the past five years I have used X-ray in the treatment of twelve selected cases of *rosacea*. All were chronic, with pustules and papules, oily skin and some hypertrophy of nose. All had been previously treated for several years with both local and internal medication and with very little benefit. By continuing the internal medication, regulating the diet, using mild drying lotions and X-ray, all cases after the fourth treatment showed marked improvement. The five remaining cases in which ten to twelve treatments were given, were apparently cured, except some telangiectasia which was present before beginning the X-ray treatment.

X-ray therapy from the very beginning has been used in the treatment of *eczema*, regardless of the cause. X-ray has very lit-

the influence on the eruption of acute cases, but it will often prevent further development and recurrence. X-ray will also hasten involution and prevent infiltration. In chronic cases where infiltration has taken place, the eruption disappears when treated with X-ray in less than half the time when salves and lotions are used alone.

In the treatment of eczema, opinions have differed as to fractional and intensive treatment. In acute cases X-ray should be given in fractional doses, one-eighth to one-fourth skin unit every three to seven days; in chronic cases larger doses will usually give better results. In both the acute and chronic cases the total treatment should never go beyond the erythematous dose. Stimulating drugs, such as tar, sulphur, resorcin, salicylic acid and mercury should never be used with X-ray.

For the past five years I have been using X-ray in the treatment of selected chronic cases of eczema and in the majority of cases treated results were obtained that I had not been getting prior to using X-ray.

In seborrheic eczema X-ray is of value in a few selected cases, especially in chronic cases which occur back of ears, edges of the hair and back of neck. In the majority of acute cases which occur on the body and limbs, X-ray is of very little value and should not be used as it will often prevent the use of more effective treatment.

My observation has been that in the treatment of chronic cases, X-ray is more effective when given in large doses three-fourths to one skin unit repeated every two or three weeks until two to three treatments are given or until eruption disappears. In very obstinate chronic cases, to prevent recurrence of the eruption, it is necessary in some cases to repeat the treatment three to four months later.

Since the World War there has been a great increase in the number of cases seen with parasitic eczema (parasitic dermatitis-epidermophytosis), this condition being seen oftener than any other skin disease. It is also one of the most annoying and obstinate conditions we have to treat. During the past five years I have had the opportunity of

treating over a thousand cases and have used lotions and salves of different strengths and combinations containing mercury, iodine, chrysarobin, salicylic acid, benzoic acid and especially the salve recommended by Whitfield (known as Whitfield's Ointment) and X-ray.

In over half the cases X-ray was used, but not exclusively, my experiments showing that when lesions were present on different parts of the body, X-ray and mild applications would succeed on some areas but fail on others. The latter responded to stronger applications without X-ray. Lesions that usually responded to X-ray and mild applications I found were located on hands, wrists and feet, while those on the body and between the toes did not respond to this method, but required strong applications.

When the eruption occurred on the feet, X-ray did not give as good results as when it occurred on the hands, but in the majority of cases it caused the acute symptoms to disappear. When the eruption occurred on the body, in the pubic region and groins, X-ray in the majority of cases was of very limited value except in cases that did not respond to antiparasitic applications.

The effect of X-ray in the treatment of parasitic eczema is due largely to the effect X-ray has on the sebaceous and sweat glands. The glands of the skin are ports of entry to the organisms that cause the disease, and X-ray will close these ports of entry against new invasion and make the soil less favorable for their growth and development. I found that X-ray, when given in fractional doses from six to ten exposures every three to seven days gave the best results. The palms of hands and soles of feet usually required more treatment, especially when it was complicated with hyperhidrosis.

There are a few cases in which X-ray has very little effect even when given in sufficient quantity to produce a chronic dermatitis; for this reason, it has been my observation in the treatment of parasitic eczema with X-ray that cases which do not respond and show some improvement after four to six treatments it is advisable to discontinue the use of X-ray. Should X-ray treatment

be continued, changes would take place in the structures of the skin that would prevent the use of other treatment. X-ray treatment should be continued several weeks after the eruption disappears in cases in which it proves effective.

The use of X-ray in the treatment of ringworm of the scalp is well established, and is recognized by all European and American dermatologists as being the most effective method of eradicating the disease, when given in epilating doses. I find that ringworm of the scalp varies greatly in different sections both in number of cases and severity of attack. In this section, middle and North Georgia, I find ringworm to be less common than farther North, and the severity of the attacks is milder. For this or some other unknown reason the use of X-ray is of very limited value, and it has not been necessary for me to epilate the entire scalp in any case in my experience. In a few cases I have used X-ray in the treatment by epilating the infected area. In the majority of cases treated I have been able to cure with antiparasitic remedies such as sulphur, salicylic acid, ammoniated mercury and iodine ointment, within two or three months' time, practically the same time X-ray treatment would require. In other sections this is not true, and treatment with X-ray by epilating the entire scalp seems to be the only satisfactory method of eradicating the disease.

Of all the skin diseases we have to treat, psoriasis is the most peculiar and stubborn and is more prone to recur than any other skin disease of which I have knowledge. No other treatment can compare with X-ray in clearing up some of the lesions, the lesions disappearing with more certainty and much greater rapidity than with any other local application. Salves and other irritating applications usually used in treating this condition are very disagreeable, and often when prescribed are not used by the patient. Some of the cases that clear up promptly with X-ray for the first few attacks later fail to be influenced at all. I find that I get the best results by treating old patches with X-ray and recent lesions with salves. When lesions do not show signs of improvement

after four fractional doses, I usually discontinue X-ray and use other treatment. By continuing X-ray it would only cause atrophy, scaliness and excessive dryness, which condition would prevent other treatment being effectively used. Great caution is necessary in treating a series of recurrences with X-ray, especially if the recurrent lesions occupy areas previously treated. As long as the eruption disappears after a small amount of irradiation the treatment can be continued; that is, if the recurrences are several months apart. The dose should be less than that given previously to avoid producing a chronic X-ray dermatitis.

In the treatment of hyperhidrosis we are dealing with a local manifestation of some systemic condition and the removal of the cause by internal medication should have first consideration. In chronic localized cases, especially of the axilla, palms and soles of feet, in which the usual systemic and local medication has failed to influence, we have in X-ray a valuable agent. In using X-ray in the treatment of hyperhidrosis it should be remembered that some cases and certain areas are more sensitive than others. It is well established that the palms will tolerate more treatment than the axilla and the soles of the feet more than the palms. To influence hyperhidrosis with X-ray it is necessary to give sufficient quantity to cause partial atrophy of the sweat glands. It is usually necessary to give five to eight fractional doses every seven to ten days, the treatment being discontinued as soon as condition is relieved or when first signs of erythema appears. By using this method of treatment there is less danger of producing too much atrophy and dryness of the skin, for an excessively dry skin is more disagreeable than the original condition, and for this there is no satisfactory treatment.

In chronic furunculosis, X-ray will often relieve conditions which have failed to yield to surgical measures, internal medication and vaccine, causing the lesions to heal and preventing recurrences. X-ray is of most value in cases in which the lesions are located in the axilla, groins and back of neck. In some cases the effects of X-ray

seem to be due to its stimulating effect, increasing antibodies rather than the effect on the glands of the skin.

In the majority of cases to get the best results it is necessary to give X-ray in sufficient quantity to cause atrophy of the sebaceous and sweat glands. Since I began to use X-ray in the treatment of furunculosis, I have used filtered and unfiltered doses, but find that I obtain better results when filter is used.

In syecosis, both the parasitic and pyogenic types are, as a rule, chronic and respond to treatment slowly, often requiring several months to cure when local and internal medication are used alone. When X-ray is used the severity of the disease is lessened, less external treatment is required, recurrences are less common, and the majority of cases can be cured in less than half the time. As a rule, good results can be secured by giving fractional doses, one-fourth to one skin unit every six or seven days until five or six doses are given. In extensive cases an epilating dose is often necessary of the entire bearded area.

Besides the above-mentioned conditions, X-ray is also used with benefit in the treatment of many other skin diseases, such as pompholyx, pruritus, blastomycosis, lichen planus, prurigo, mycosis fungoides, verruca and keloid.

In treating skin diseases X-ray is therefore a valuable agent, temporarily relieving many cases and permanently curing many others. However, it is usually necessary to use other treatment with X-ray for best results.

CORRECTION

Correction of error in publication of article by Drs. M. L. Boyd and E. H. Floyd, November, 1923:

"The Value of Pyelo-Ureterograms in Obscure Kidney Lesions."

The plate or picture shown as Figure No. 13 should really be Figure No. 5. The plate shown as Figure No. 5 is meant for plate No. 7.

Figure No. 7 should be the upper plate for case No. 5 (Figure No. 9). Figure No. 9 belongs to case No. 6, and should be Figure No. 13.

ECZEMA OR DERMATITIS*

Jack W. Jones, M.D.,
Atlanta, Ga.

The selection of a dermatological subject for a paper to be read before a group of men interested fundamentally in general medicine is a much more difficult task than the selection of one to be read before a dermatological society. There is probably less interest in the general profession in dermatology than in any of the other specialties of medicine. Therefore in selecting this title my object was to select the most common disease of the specialty. The subject is so large that I can only hope in a general way to touch on a few general points.

Eczema is probably the most common diagnosis made in dermatology. The older authors put its incidence at from one-fourth to one-third of all dermatological conditions reported. The term eczema has been called the dermatologists' scrap heap. When we see a certain given clinical picture with no cause to be found, eczema is about the only diagnosis we feel justified in making. The laity places practically all skin conditions under one broad heading, viz: Eczema. Members of the profession with very little training in dermatology also are inclined to cover up their ignorance with the diagnosis of eczema for the larger part of conditions seen on the skin. The dermatologist, in making the diagnosis of eczema, also confesses his ignorance but only of etiology and not of the clinical picture presented. As the field of dermatology enlarges with the addition of more men entering this special field and the consequent increase of original work by these men, the term eczema is becoming less prevalent and the term dermatitis this or dermatitis that, is taking its place. The term dermatitis must also come in for its share of censure. The use of this term in a loose sense just to make a diagnosis is even more to be deplored than the use of the term eczema. Eczema at least assumes no definite etiology, but the term dermatitis with the proper qualifications does assume a definite etiology and without the proper qualifications means nothing. The term eczema as used by the writers of today takes on an entirely different meaning from the term used by the writers of a decade ago. In recent years a large number of dis-

*Read before the Chattahoochee Medical Society, July 11, 1923.

eases have been described, their etiology cleared up and given a place as a distinct clinical entity separating them from the old broad term of eczema. To enumerate some of these conditions would include such diseases as seborrheic dermatitis, various forms of dermatitis venenata, etc.

Etiology

The etiological factors of eczema given by the older writers are classified as idiopathic and symptomatic. The theories advanced by our modern text-books may be roughly divided into (1) bacterial, (2) external irritative, (3) internal irritative. The first theory may be said to be an expression of the German school the second of the Vienna school and the third of the French school. The American dermatologists are inclined to look with favor upon a combination of the French and Vienna school ideas. As the fresh eczema vesicle has repeatedly given negative bacteriological results, the bacterial theory is generally conceded to have the least to support it. Nevertheless, we must keep in mind the undoubted etiology of tinea cruris, infectious eczematoid dermatitis, etc., which were once placed in the eczema group. A large percentage of our cases from the eczema seen can certainly be placed under the heading of dermatitis venenata. Of the third group, internal irritative, we have a certain percentage of these cases in which the exact irritant can be found, these may then be placed under other headings as dermatitis medicamentosa, etc.

Close observers are finding that more and more cases previously classed as eczema are coming to fall under the head of dermatitis from internal or external irritants expressed as an eczema. In almost any issue of the dermatological journals one may find a report of some drug or chemical or what not, not heretofore recognized, implicated in the production of a dermatitis. One of the oldest and most classical examples of dermatitis venenata is that of poison ivy or oak. We have about arrived at the point where it is to be conceded that almost any chemical or irritant, given the proper individual under the proper surroundings, may be responsible for the production of a dermatitis. Jaeger *Ann de Dermat. et Syph*, January and February 1923 has shown in a series of eczema pa-

tients and controls that application to the skin of ordinary harmless percentages of various irritants gave reactions in about fifty per cent of the eczema patients and only four per cent of the controls. This and like experiences add another factor to our conception of dermatitis venenata.

Probably the most important class of the irritant group from the economic standpoint is that of the occupational or industrial dermatoses. Lane *Arch Dermat et Syph*, Nov. 1922 from a study of over 7000 cases in the clinic of the Massachusetts General Hospital concludes that four to five per cent of the total admissions to the skin clinic may be caused by occupational factors. Thus we see that in the examination of the so-called eczemas it is wise to go into minute detail as to the occupation. The treatment of the occupational dermatoses presents to us a problem requiring a great deal of study. It is very easy to tell a patient that his trouble is caused by his work and that he must quit it, but sometimes this type of work is all that the patient knows or can do. In a certain percentage of cases a prevention of recurrence may be secured by changing the working conditions of the patient or protection of the parts exposed while he is doing this particular work. It is in this direction that most of the efforts in treatment should be directed. In our consideration of these cases sometimes we allow ourselves to be led off track by the fact that the patient has been doing this type of work for years with no previous outbreak. We must not forget that most of the causes of this type of eruption may be acting for a long time without provoking any irritation, when suddenly or gradually some underlying condition supervenes, or the resisting power of the skin has been overcome, and an eczema results. This is seen over and over again with certain occupations.

When we have carefully considered all cases of eczema from the standpoint of all known etiological influences, we will still have a certain per cent which cannot be attributed to any exact cause. Unquestionably, the more closely we examine our patients and the more we go into detail the smaller this percentage will become. Whether in the years to come this percentage will approach zero and the term eczema

be discarded is a question which today cannot be answered. I can only say that to me the term eczema at present has a very definite meaning and describes a very definite type of case, for the present at any rate a clinical entity.

✓ **COMPOUND AND MULTIPLE FRACTURES OF THE LOWER JAW***

(A Case Report)

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In presenting a report of this case, nothing unusual or scientific in its management will be detailed; but the interest I hope to awaken is the fact that can best be expressed by an adage, "Failure is the Father of Ingenuity," just as truly as "Necessity is the Mother of Invention." It was only when driven to desperation by a week's repeated failure to maintain reduction in this case, that the strenuous measures to be outlined were employed.

The case is this: Mrs. L. B.; white; aged 42; occupation, housewife (?); a widow. Before daylight Sunday morning, September 24th, 1922, I was called out to see this woman, and found her just in from an interrupted night automobile ride from a neighboring city, from which she had been accompanied by another woman and three men, who had started their journey in a Ford. About ten miles from Brunswick the car had turned over, catching this patient's lower jaw under it. On hurried examination, we found the lower lip and soft tissues torn away from the jawbone, with an oblique fracture extending across the point of the jaw which communicated with the outside through a jagged wound following the line of fracture. In addition to this, there was diagnosed another fracture of the left condyle just below its articular surfaces.

Having no competent assistance or needed appliances, she was ordered removed to the hospital after temporary dressings and bandaging.

Sunday afternoon, Dr. Frank B. Atkinson, a dentist, was called to assist me by taking the impression for an interdental splint. Monday the splint was ready, and we anesthetized her for reduction of the fractures and putting on bandages. To our surprise, after ether narcosis and repeated attempts to maintain reduction on

the splint with the usual bandages, and repeated failures to secure the proper relationship, we found the reasons therefore in two other fractures, one just anterior to the last present molar on the right side, and the other just above the angle on the right, making four fractures in all of this member.

You can readily imagine how a jaw in this condition would have a tendency on account of the muscular pull from above and below in sundry directions, to become markedly displaced. In fact the effect of a receding chin was markedly exaggerated.

After a great deal of struggle with the obstreperous fragments, I wired some of the front upper to lower teeth over the splint. In spite of this, the displacements occurred.

The woman had one molar on each side, upper and lower, left, right upper canine, both upper bicuspid, two upper middle incisors. In the lower jaw, she had as stated, one molar far back on each side, left bicuspid and canine, all incisors and right canine left in the jaw, with the right lower lateral incisor resting in the seat of fracture loosely.

After a week's trial with all sorts of bandages and other measures of restraint, we finally decided to tie wherever tying was possible.

This measure was questioned by some with whom we spoke, and the dentist himself had some doubt about the advisability of using all the teeth left for anchors and guy posts, but desperation succeeded. The interdental splint was first secured firmly to the lower teeth by six bronze-gold wires. Wires were fixed to six of the upper teeth, ends properly adjusted for immediate twisting and tightening.

The jaw was adjusted until every tooth fitted into its respective indentation in the splint, which was made with every care to proper occlusion, overhang, bite, etc. The splint and through it, the lower jaw was quickly fastened to the upper teeth.

To make assurance doubly sure, four of the ends of wire from the lower teeth, which had been used to fasten the splint to them, and four corresponding ends from the tied wires of the upper teeth, were then fastened together over the splint; and in addition to these two other spanning ties were made over the splint from lower to upper teeth.

*Read before the 12th Dist. Med. Society.

Needless to say, this number of wires held the lower jaw in perfect apposition, without even a bandage about the head, Barton's, four-tailed, or any other kind, being superfluous, except for retaining dressings on the chin and obliterating the space where the tissues had been torn away from the bone. By the time of the last splinting, the chin wound had about closed, and within a few days, the inside wound had healed nicely in spite of the mouth toilet enjoined upon the patient.

A plate with the missing upper teeth, of course had been removed during treatment, and plenty of room was present in the interdental splint for the intake of liquid, and semi-liquid nourishment. The patient's nutrition did not suffer a bit from her experience. After the thorough wiring and the proper placing of the ends so as to avoid irritation of the soft parts, she also enjoyed her proclivity to talk, with no apparent ill results.

The patient after the last splinting made an uneventful recovery, and the splint with all wires was removed November 6th. The only noticeable deformity existing is some excess of callus on the left side of the ramus, which resulted no doubt from the movements of the fragments during the first week of attempted treatment. The teeth are all in apposition, the only complaint made, being that the back teeth seemed a little high. This would naturally follow in forcible maintenance of the jaw in the position in which it was held for so long.

I will not speak of the reward for the first week's worry and fretting, nor for the final results the patient obtained, except to say it is probably "in heaven," and from his present attitude it is going to take some strenuous work on his part to get there and collect it.

HYDROCELE OF THE CANAL OF NUCK.

REPORT OF A CASE

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Hydrocele of the canal of Nuck is not an extremely rare condition. However, it occurs with sufficient infrequency to make it unusual.

The literature on the subject is rather scant, and the case reports of this condition, relatively few. It is apt to be mistaken for an inguinal hernia, a condition with which it is sometimes associated. The following case was sent to the hospital, diagnosed as a strangulated hernia.



Hydrocele of the Canal of Nuck

Case Report

B. G., colored female, age 41, was admitted to the surgical service during the evening of 4-7-23. Past and family history were essentially negative.

Present illness: On the day of admission patient had done a heavy wash. She was not "feeling very well" so she took some medicine given to her by a friend. She had no idea, however, as to what it contained. A short time thereafter she felt slightly nauseated, and vomited. She had mild crampy sensations in the lower abdomen, so she came to the clinic for relief. Physical examination was practi-

cally negative except for a non-reducible, tense, and slightly tender mass in the left inguinal region, roughly $3\frac{1}{2}$ in. (9 cm.), by 2 in. (5 cm.), in its longest diameters. It had the general appearance and position of an inguinal hernia. (See illustration). It was, however, non-reducible, and transilluminated perfectly, even with a small pocket light. The patient said that this mass had been present for something over 4 years, had started as a small "knot," and had gradually increased to its present size, regressing slightly at times, but never going away entirely. It was very slightly tender to palpation, a fact due partly to earlier efforts at "reduction." The gastrointestinal symptoms apparently had no connection with the hydrocele but resulted from the "medicine" which may have contained an emetic. The routine laboratory findings on this case; viz. blood count, urine, and Wassermann, were all negative. Several days later the hydrocele sac was dissected out. There was no coexistent hernia.

This condition is mentioned by different authors under a variety of names such as "hydrocele of the round ligament," "hydrocele muliebris," "pundental hydrocele," "labial hydrocele," or "hydrocele of the canal of Nuck."

Varieties: A variety of cystic enlargements in the inguinal region of the female have been described under these names. Regnoli has simplified the classification as follows:

1. Diffuse hydrocele in the connective tissue surrounding the round ligament.
2. Hydrocele of the canal of Nuck communicating with the abdominal cavity.
3. Encysted hydrocele of the canal of Nuck (no abdominal communication.)
4. Encysted hydrocele of the connective tissue enveloping the round ligament.

Embryology: The processus vaginalis or funicular process is the term applied to the protrusion of peritoneum which precedes the testis in the male to form the tunica vaginalis, and which in the female accompanies the round ligament, becoming the canal of Nuck. Normally, this becomes obliterated, but sometimes portions remain patent. When these remain become distended with fluid, they give rise to what is known as hydrocele of the cord

in the male, and the condition described above in the female.

Symptoms: The enlargement as a rule is of slow development and seldom produces any discomfort until it attains some size. Then it may produce very mild pressure symptoms, or cause annoyance because of its mechanical presence.

Diagnosis: Although the diagnosis is easy in uncomplicated cases, if the possibility of these cystic conditions is borne in mind, they are usually confused with hernia. When associated with hernia, the diagnosis is not quite as easy. However, this matters little aside from an academic standpoint, for the treatment in such cases is the same. The diagnosis rests upon the presence of the slowly increasing tumor in this region, which is globular in form, symmetric in outline, non-reducible, elastic, and possibly fluctuant, usually not very tender, and which transilluminates. The diagnosis can be corroborated by aspiration, which gives a clear, straw colored fluid.

Treatment: The most satisfactory treatment is excision of the sac, and obliteration of the distended inguinal canal. Some writers advise aspiration of the sac and the injection of irritants. This however, is not surgical and is not without danger.

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EXTRA-GENITAL CHANCRE BETWEEN THE BREASTS

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 Atlanta, Georgia.

I have been prompted to report this case primarily because of its unusual location and because of the clinical appearance of the lesion which made the diagnosis unmistakable. We well know that the extra-genital chancre may occur on any surface exposed to contact with syphilitic organisms, their usual location being upon the lip, mucous membrane of the mouth and pharynx, anus, nipple, finger, etc. The sore is nearly



Extra-Genital Chancre Between the Breasts

always single, but occasionally may be multiple, the latter being particularly common around the anus. We must remember that the extra-genital sore is generally of the hypertrophic or ulcerative type and there is very little surrounding inflammation. If the lesion is situated upon a mucous membrane, the glandular enlargement is quite pronounced, although if the lesion is situated upon other areas there is a general enlargement of the associated glands. In a number of instances, these sores are not at all typical and unless the patient is carefully watched, and we co-operate with the laboratory worker, secondaries will surely follow. Again the lesions may be so small as to escape notice and emphasis must be placed upon repeated dark-field examinations and Wassermann tests. In a previous paper, "The Importance of the Proper Interpretation of the Primary Sore" published in the Journal of the Medical Association of Georgia, February 1922, I laid stress upon the careful study of the lesion, its incubation period, its development, degree of induration and the associated la-

boratory reports. Only in this way will we be able to institute prompt therapeutic measures which would cause rapid disappearance of the sore and prevent complications.

Report of Case

B. J., female, aged 22, widow, consulted me at the office July 22nd, regarding the presence of a sore between her breasts which has persisted for about three weeks and showed no tendency to heal. At the time she was treated by her family physician who prescribed local remedies with no improvement in her symptoms. The history was otherwise negative, except for the fact that the lesion started as a small scratch while in swimming with a party of friends and had continued to grow larger in spite of treatment.

Physical examination disclosed a lesion about the size of a one-cent piece, which was situated in the upper angle between the breasts. It was of the hypertrophic type and had the characteristics of a typical primary sore, e.g. induration, persistency of the lesion, etc. There were also mucous patches upon the lips, gums, and tonsils associated with a moderately severe pharyngitis. There was a moderate enlargement of the glands, particularly the cervical and epitrochlears, and a diffuse maculo-papular syphilide quite pronounced over the abdomen, back, and extremities. Constitutional symptoms, such as lassitude, aching in the muscles and joints, were present. The dark field test was reported negative, but the Wassermann four plus. Treatment was immediately instituted and the lesion entirely disappeared after the administration of two doses of Neo-salvarsan, .4 and .6, respectively. She is still under observation, attending the office regularly and feels clinically well.

"Magnificent! Magnificent!" was all the dentist said.

"Then you don't find anything to do to them?"

"To do to them? Why, there are four to be pulled, six to be filled and a bridge to make," said the dentist.—Hygeia.

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Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

Editorial Department

FIGHTING CANCER WITH PRESENT KNOWN FACTS

May 22, 1913 in New York City at a meeting of delegates appointed by the principle medical societies of the United States—together with a number of prominent citizens who were convinced of the need of a national organization to disseminate knowledge concerning the symptoms, diagnosis and treatment of cancer—organized and founded the American Society for the Control of Cancer. The founders of this organization expressed their belief that a national campaign of public education regarding the present known facts about cancer would save many thousands of lives now needlessly sacrificed every year because of the ignorance of warning signs of this fatal disease when competent medical advise and treatment is delayed. With this object in view it was decided that a concentrated effort for a certain number of days would bring greater results than a continued effort through the year. Definite plans were made to put on an intensive educational campaign for one week—this week to be known as "Cancer Week." The facts to be disseminated to the general public during this week through Newspapers, Periodicals, Medical Journals,

Civic Clubs, Parent-Teacher Associations, Churches, etc.

This work has progressed until the present time has been extended from one week to four weeks in each year and an organization composed of the following has been established:

1. A National or an Executive Office and Officers
2. A State Chairman for each State.
3. A District Chairman for each Congressional District.
4. A Committee Chairman for each Committee.

5. Local Committees to be Appointed by each Committee Chairman.

Each officer starting from local committee men reporting back through rank and file to the national officer furnishes the valuable information obtainable at present time to make progress in the Cancer Control. Beginning January 15th through February 14th, inclusive, the 1924 Cancer Campaign will be on in Georgia. It is very essential that each Chairman, whether State, District or County, see that his local committees are ALIVE and ACTIVE. To get the widest dissemination before the general public about the present known facts about cancer, it will be necessary for

1. Every newspaper in the State to carry an article on cancer control at least once a week for the four weeks.
2. Each Journal, Periodical, etc., to carry at least one article during the campaign.
3. Each County Medical Society to devote one meeting to the discussion of cancer.
4. Each County Chairman to see that his local committee men have the vital facts brought before the Women's Clubs, Civic Clubs, Parent-Teacher Associations, Churches and any other public gathering during the public campaign.

What are the present known facts as set forth by the Cancer Commission?

90,000 People Died of Cancer During 1922

1. Cancer, is now killing *one out of every* ten persons over forty years of age.
2. Many of these deaths are preventable, since cancer is frequently curable, if recognized and properly treated in its early stages.
3. Cancer begins as a small local growth

which can often be entirely removed by competent surgical treatment, or, in certain external forms, by using radium, X-ray or other methods.

4. Cancer is not a constitutional or "blood" disease.

5. *Cancer is not a communicable disease.*

6. *Cancer is not inherited.* It is not certain even that a tendency to the disease is inherited.

7. The beginning of cancer is usually *painless*: for this reason its insidious onset is frequently overlooked, and is too easily neglected. *Other danger signals must be recognized and competent medical advice obtained at once.*

8. Every persisting *lump in the breast* is a warning sign. All such lumps are by no means cancer, but even innocent tumors of the breast may turn into cancer if neglected.

9. In women *continued unusual discharge or bleeding* requires the immediate advice of a competent doctor. The normal change of life is not accompanied by increasing flowing which is always suspicious. The return of flowing after it has once stopped should also be considered suspicious. In men *any reddish color in the urine* is very suspicious of cancer in the bladder or kidney; though it is also seen sometimes with stone of the bladder or kidney. Do not expect the doctor to tell you what the matter is without making a careful physical examination.

10. *Any sore that does not heal*, particularly about the mouth, lips or tongue, is a danger signal. Picking and irritating such sores, cracks ulcerations, etc., or treating these skin conditions by home remedies, pastes, poultices, caustics, etc., is playing with fire. Warty growths, moles, or other birthmarks, especially those subject to constant irritation, should be attended to immediately if they change in color or appearance, or start to grow. Avoidance of chronic irritation and removal of just such seemingly insignificant danger spots may prevent cancer.

11. *Persistent indigestion* in middle life, loss of weight and change of color, or with pain, vomiting, or diarrhoea, call for thorough and competent medical advice as to the possibility of internal cancer.

12. *Radium* is a useful and promising means of treatment for some kinds of cancer, in the hands of the few skillful surgeons and hospitals possessing sufficient quantity of this rare and very expensive substance; it must not be thought of as a cure-all for every form of cancer. No medicine will cure cancer. Doctors and institutes which advertise "cures without the knife" play upon the patient's fear of operation in a way that leads too often to the loss of precious time, and fatal delay in seeking competent treatment. Go first to your family physician.

13. *Open warfare by open discussion* will mean the prevention of many needless deaths from cancer. The common belief that cancer is a hopeless malady is partly due to the fact that cases of successful treatment are frequently concealed by the patient and his family, while cases of failure (too often resulting from delay) are apt to become common knowledge.

How are these facts obtained? Only by each and every doctor taking a careful history and making a thorough examination of every case.

Pruitt.

**MEETING OF THE ALABAMA, FLORIDA
AND GEORGIA SECTIONS OF THE
AMERICAN COLLEGE OF SUR-
GEONS JAN. 31st AND FEB. 1st
1924, IN ATLANTA, GA.**

There will be a meeting of the Alabama, Florida and Georgia sections of the American College of Surgeons January 31st and Feb. 1st, 1924, in Atlanta, Ga.

The Georgian Terrace will be headquarters and the meetings will be held in the Academy of Medicine on Howard Street, which is only two blocks away.

Members of the Medical Association of Georgia are cordially invited to be present.

An interesting and instructive program is being arranged and several outstanding surgeons will present papers and addresses.

WM. S. GOLDSMITH, M.D., Chm.,
E. G. BALLENGER, M.D., Sec'y.

TIPS FOR TAXPAYERS

January 1, 1924, marks the beginning of the period for filing income-tax returns for the year 1923. The period ends at midnight of March 15, 1924. Heavy penalties are provided by the revenue act for failure or willful refusal to make a return and pay the tax on time.

Form 1040A, heretofore used for reporting net income of \$5,000 and less, from whatever source derived, has been revised in the interests of the largest class of taxpayers—wage earners and salaried persons. Reduced from six pages to a single sheet, Form 1040A is to be used for reporting net income of \$5,000 and less derived chiefly from salaries and wages. Persons any part of whose income is derived from a business or profession, farming, sale of property or rent, though the amount is \$5,000 or less, will be required to use the larger form, 1040. The use of Form 1040 is required also in all cases where the net income was in excess of \$5,000, regardless of whether from salary, business, profession, or other taxable sources.

It being impossible to determine at this time which form is desired, copies of both forms will be sent taxpayers who filed individual returns for the year 1922, and may be obtained also at the offices of collectors of internal revenue and branch offices upon written request.

Deductions for bad debts and contributions, which are allowable under the revenue act, form a considerable item in the income-tax returns of many taxpayers. Bad debts can be deducted only for the year in which they are ascertained to be worthless and charged off the books of the taxpayer. The return must show evidence of the manner in which the worthlessness of the debt was discovered and that ordinary and legal means for collection have been or would be unavailing.

Unpaid loans made to needy relatives or friends with little or no expectation that they would be repaid are not deductible but are regarded as gifts.

In the making of his 1923 income-tax return the business man, professional man, and farmer may deduct from gross income all items properly attributable to business expenses. In the case of a storekeeper they include amounts spent for rent of his place of business, advertising, pre-

miums for insurance against fire or other losses, the cost of water, light, and heat used in his place of business, drayage and freight bills, the cost of repairs and maintenance to delivery wagons and trucks, and a reasonable allowance for salaries of employees. A professional man, lawyer, doctor, or dentist may deduct the cost of supplies used in his profession, expenses paid in the operation and repair of an automobile used in making professional calls, dues to professional societies, subscriptions to professional journals, office rent, cost of light, heat, and water used in his office, and the hire of office assistants. The farmer may deduct amounts paid in the production and harvesting of his crops, cost of seed and fertilizer used, cost of minor repairs to farm buildings (other than the dwelling), and cost of small tools used up in the course of a year or two.

Randolph County Medical Society

The Randolph County Medical Society announces the following officers for the year 1924:

President—Dr. H. R. Ingram, Coleman.

Vice President—Dr. Loren Gary, Georgetown.

Secretary-Treasurer—Dr. G. Y. Moore, Cuthbert.

Board of Censors—Dr. W. W. Crook, Dr. F. S. Rogers and Dr. F. D. Patterson.

Delegate—Dr. J. C. Patterson, Cuthbert.

Alternate—Dr. F. M. Martin, Shellman.

Ware County Medical Society

The Ware County Medical Society announces the following officers for the year 1924:

President—Dr. D. M. Bradley, Waycross.

Vice President—Dr. K. McCullough, Waycross.

Secretary-Treasurer—Dr. J. E. Penland, Waycross.

Delegate—Dr. W. C. Hafford, Waycross.

Alternate—Dr. H. J. Carswell, Waycross.

Board of Censors—Dr. R. C. Walker, Waycross.

Chatham County Medical Society

The Chatham County Medical Society announces the following officers for the year 1924:

President—Dr. R. V. Martin, Savannah.

Vice President—Dr. S. Usher, Savannah.

Secretary-Treasurer—Dr. E. C. Demmond, Savannah.

Delegates—Drs. H. H. McGee and A. J. War-
ing.

Alternates—Drs. J. O. Baker and H. W.
Hesse.

Board of Censors—Dr. H. W. Hesse.

Stewart-Webster Counties Medical Society

The Stewart-Webster Counties Society an-
nounces the following officers for the year 1924:

President—Dr. G. G. Lunsford, Weston.

Vice President—Dr. J. H. Foster, Preston.

Secretary-Treasurer—Dr. M. Walton, Lump-
kin.

Delegate—Dr. C. E. Pickett, Richland.

Alternate—Dr. J. H. Foster, Preston.

Tri-County Medical Society

The Tri-County Medical Society announces
the following officers for the year 1924:

President—Dr. J. L. Cheshire, Damascus.

Vice President—Dr. W. C. Hays, Colquitt.

Secretary-Treasurer—Dr. C. K. Sharp, Ar-
lington.

Delegate—Dr. W. O. Sheperd, Buffton.

Censors—Drs. J. S. Beard, C. W. Twitty, C.
R. Barksdale and P. E. Griffin.

Committee on Public Health and Insurance—
Drs. J. G. Standifer, C. J. Jenkins, W. C. Hays,
B. T. Johnson and E. C. Smith.

Bibb County Medical Society

The Bibb County Medical Society announces
the following officers for the year 1924:

President—Dr. Herring Winship.

Vice President—Dr. O. S. Spivey.

Secretary-Treasurer—Dr. Fred Adams.

Delegates—Drs. O. H. Weaver and G. Y.
Massenburg.

Censors—Drs. J. C. Anderson, C. D. Cleg-
horn and A. R. Rozar.

ASSOCIATION OF S. A. L. RY. SURGEONS

The twentieth annual session of the Associa-
tion of Seaboard Air Line Railway Surgeons
was held at Havana, Cuba, Dec. 5, 6, 7, 1923.

OFFICERS

Chief Surgeon—Joseph M. Burke, Peters-
burg, Va.

President—R. B. Epting, Greenwood, S. C.

First Vice-President—J. E. Johnson, El-
berton, Ga.

Second Vice-President—H. H. Bass, Hender-
son, N. C.

Third Vice-President—T. M. McDuffee,
Manatee, Fla.

Secretary and Treasurer—J. W. Palmer,
Ailey, Ga.

EXECUTIVE COMMITTEE

Joseph M. Burke, Chairman, Petersburg, Va.

S. E. Harmon, Columbia, S. C. (1923)

E. H. Terrell, Richmond, Va. (1924)

G. S. Watkins, Oxford, N. C. (1925)

W. C. Powell, Petersburg, Va. (1926)

W. S. Manning, Jacksonville, Fla. (1927)

COMMITTEE ON NECROLOGY

W. C. Griffin, Cartersville, Ga.

J. B. Curtis, Orange Heights, Fla.

L. S. Oppenheimer, Tampa, Fla.

PROGRAM

Meeting called to order by President.

Address of Welcome in behalf of the Med-
ical Profession of Havana, Cuba—Surgeon Rai-
mundo de Castro.

Response to Address of Welcome—Jack Hal-
ton, Sarasota, Fla.

President's Address.

Address—Chief Surgeon Jos. M. Burke,
Petersburg, Va.

Address—S. R. Brittingham, Norfolk, Va.,
Claims Attorney, S. A. L. Railway.

Report of Secretary and Treasurer.

General discussion of Foreign Transporta-
tion.

"Foreign Bodies in the Eye."—Jack Halton,
Sarasota.

General Discussion.

"Blood Transfusion in Shocks."—Frank
Eskridge, Atlanta, Ga.

General Discussion.

"Primary Indications in Traumatic Sur-
gery."—J. E. Rawls, Suffolk, Va.

General Discussion.

"Open Treatment of Wounds."—L. S. Op-
penheimer, Tampa, Fla.

General Discussion.

"The Doctor's Barnacles."—J. G. Dean, Daw-
son, Ga.

General Discussion.

NEWS ITEMS

Dr. Cornelius E. Ware announces the removal of his office to 511 Hurt Bldg., Atlanta. Practice limited to eye, ear, nose and throat.

Dr. Harry B. Nunnally, eye, ear, nose and throat specialist, has opened offices at suite 824 Hurt Bldg., Atlanta. Dr. Nunnally is associated with Dr. G. D. Ayer.

Dr. William N. Adkins, 79 Forrest Ave., Atlanta, has now associated with him, Dr. William T. Freeman.

The friends of Dr. and Mrs. E. C. Thomas, formerly of LaGrange, are regretting their departure to Miami, Fla., where Dr. Thomas will practice his profession in the future.

The following medical officers were named for the King's Daughters' Hospital, at Waycross:

Dr. Raymond L. Johnson, President.

Dr. D. M. Bradley, Vice-President.

Dr. G. N. MacDonell, Secretary.

Dr. W. C. Hafford and Dr. W. M. Folks, members of the Executive Committee.

Dr. Geo. H. Chapman has been appointed to succeed Dr. H. D. Allen, Jr., as Health Officer of Baldwin County.

The late Mr. James N. Renfroe, former prominent Atlantan, left \$10,000 to the Wesley Memorial Hospital in honor of his mother, Mrs. Sarah E. Renfroe.

Drs. F. D. and J. C. Patterson have purchased a new home for the Patterson Hospital, Cuthbert, which they own and operate.

The Third Congressional District held its annual meeting November 21st, at Cuthbert. Physicians attended from all parts of the section, as well as from other territories.

The Sixth District Medical Society convened at Forsyth, December 5th. Dr. A. R. Rozar, Macon, was elected President and Dr. R. C. Goolsby, Jr., Forsyth, Vice President.

ANNOUNCEMENT OF REMOVAL

The many medical friends of Burroughs Wellcome & Co. will be interested in the removal of this well-known firm's New York establishment to their new building at 9-11 East Forty-First Street. This building which is a modern steel framed, fire-proofed twelve-story structure of pure Gothic style. Handsome and attractive in appearance, its refined and distinctive character makes it a pleasing and conspicuous addition to the many notable buildings in its vicinity.

A cordial invitation is extended to the medical profession by Messrs. Burroughs Wellcome & Co. to visit their new Exhibition Rooms at any time to inspect the display of Fine Chemicals, Galenicals and other Products for which the firm has been so long and favorably known.

ANNOUNCEMENT

The Eighth Annual Clinical Session of The American Congress on Internal Medicine will be held in the Amphitheatres, Wards, and Laboratories of the various institutions concerned with medical teaching, at St. Louis, Mo., beginning Monday, February 18th, 1924.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General.

ELSWORTH S. SMITH, President,
St. Louis, Mo.

Frank Smithies, Sec'y.-Gen'l.,
1002 N. Dearborn St.,
Chicago, Ill.

MARRIAGES

Dr. B. L. Shackleford and Miss Winnifred Madden were married Tuesday, December 25th at the home of the brides parents in Concord, Ga.

A BAD BREAK

"So Miss Passay is angry with her doctor. Why is that?"

"He tactlessly remarked that he would soon have her looking her old self again."—Hygeia.

OBITUARY

ARTHUR GIBBON KELLEY

1888-1923.

The Fulton County Medical Society, the medical profession, and the public have sustained a great loss in the death of our fellow member, Dr. Arthur Gibbon Kelley. During his short career in medicine he had attained high rank. He had won the esteem of the medical profession throughout the country. At the time of his death he was Chairman of the Section on Pathology of the Southern Medical Association. At one time he was Associate Professor of Bacteriology and Director pro tem of the Department of Pathology at Emory University. After resigning this connection he became Director of the Departments of Pathology at the Piedmont Hospital and the Scottish Rite Hospital for Crippled Children. Dr. Kelley contributed several articles of worth to Medical literature. His work on the sugar content of the spinal fluid in health and in disease demands especial notice. In addition to the degree of Doctor of Medicine, he was also a Fellow of the American College of Physicians. During the World War Dr. Kelley entered the army as a Lieutenant in the Medical Corps. As an evidence of his efficiency as an officer he attained his Majority before the close of the War. Those who knew him loved him as a brother. We grieve with his family in their bereavement.

The Committee recommends that the secretary file these resolutions in the Archives of the Society, and that a copy be sent to Mrs. Kelley.

CHAS. E. DOWMAN, Chm.,

W. R. HOLMES,

H. J. ROSENBERG.

Dr. William J. Matthews, 55 years of age, was found dead in his bed December 4, 1923. Dr. Matthews had practiced medicine in Elberton for the past 28 years and was prominently known.

Dr. A. C. Moreland, well known physician of Forsyth, died at a local sanitarium December 5, 1923. Dr. Moreland was a former resident of Atlanta, but on account of ill health retired from practice and moved to Forsyth.

Dr. James T. King, 54, prominent physician

of Quitman, died December 6, 1923, after a long illness.

Dr. Joseph A. Groves, Atlanta, died November 26, 1923, at the age of 93. He had practiced medicine at Selma, Ala., for 55 years.

PROPAGANDA FOR REFORM

Administration of Insulin. The present methods of administering insulin parenterally are far from satisfactory. Consequently, the earliest investigators of insulin and other pancreatic preparations attempted to secure physiologic effects by oral administration. There is evidence that slight effects may be obtained when insulin or other pancreatic preparations are introduced into the organism by way of the mouth under certain conditions. On the whole, however, the oral administration of insulin has proven quite inefficient. Rectal administration and nasal insufflation have been tried without success. A recent study showed that pancreatic extracts taken in capsule form by the stomach was not effective in decreasing blood sugar or urinary sugar. It is desirable to give wide publicity to the current limitations of a most promising therapy, since unscrupulous venders are already attempting to distribute just-as-good pancreatic or antidiabetic preparations that are recommended for oral use. (Jour. A. M. A., September 1, 1923, p. 752).

El Zair. This is quackery's latest offer of an elixir of life. The nostrum is brought to the attention of the public by El Zair, Inc., New York. The firm claims that the elixir of youth has at last been found. Much is made of the endorsement which the late W. T. Stead is stated to have given the nostrum. El Zair is to be dissolved in water and applied by sponging the body with it daily. The A. M. A. Chemical Laboratory analyzed El Zair and reported that essentially it may be considered to consist of one part of glacial acetic acid and three parts of magnesium sulphate (Epsom salt) perfumed with oil of bergamot. The contents of a bottle of El Zair are to be dissolved in a pint of water and, therefore, an essentially

similar solution can be made by dissolving 2½ ounces of Epsom salt in a pint of distilled vinegar. (Jour. A. M. A., Sept. 1, 1923, p. 768).

Lactic Acid-Producing Organisms and Preparations. The Council on Pharmacy and Chemistry reports on the present status of sour milk therapy. During recent years reports have been published which indicate that the growth in the intestine of the normally present *Bacillus acidophilus* may be increased so as to make this the predominating organism, by the administration of lactose, by milk fermented with *Bacillus acidophilus*, or by the administration of viable cultures of *Bacillus acidophilus* in conjunction with lactose. Growing out of the claims of favorable therapeutic action, the use of so-called *Bacillus acidophilus* milk and other products prepared with *B. acidophilus* has become quite widespread. While no one subscribes today to the original theories of Metchnikoff, there are many who believe that the regulation of the bacterial flora is of importance. There is evidence that the administration of sour milk is at times beneficial, particularly in pediatrics. A wide clinical observation indicates that for certain types of gastric and intestinal disturbances, fermented milk accomplishes more than unfermented milk. (Jour. A. M. A., Sept. 8, 1923, p. 831).

Calcium Chlorid in Hay Fever. Calcium chlorid seems to be of some use in the treatment of hay fever, but it must be taken in rather large doses during the whole season to be of much benefit—about 1 Gm., from four to six times a day. The use of this drug in hay fever is chiefly based on the work of European investigators who have shown that the permeability of the mucous membranes and of the capillaries is decreased by the internal application of calcium chlorid. The treatment is entirely symptomatic, and no permanent relief must be expected. (Jour. A. M. A., September 8, 1923, p. 850).

Accidents with Local Anesthetics. The chairman of the committee for the study of toxic effects of local anesthetics, appointed

by the Therapeutic Research Committee of the Council on Pharmacy and Chemistry, publishes a preliminary report. The committee has received reports of forty-two deaths following the use of local anesthetics occurring within the last few years. These accidents have not been reported on by former committees of the association. The deaths reported are:

Anesthetic	Number
Stovain	1
Alypin	1
Procain	3
Apothesin	4
Butyn	4
Butyn and cocain	1
Procain and cocain	10
Cocain	18
Total	42

Under the headings Procain, and Procain and Cocain, novocain is included; one is reported as procain and the other twelve as novocain. As the five deaths following the use of butyn are the first reported, the committee is very desirous of receiving full details of other fatalities for comparison of relative toxicity. These reports should be sent to the chairman of the committee, Emil Mayer, M. D., 40 East Forty-First Street, New York City. (Jour. A. M. A., September 15, 1923, p. 947).

Some More Miscellaneous Nostrums. The following products have been the subject of prosecution by the Federal authorities charged with the enforcement of the Food and Drugs Act: Cowan's Rheumatism Herb (Rheumatism Herb Co.), consisting of dried and moldy leaves of a species of eucalyptus. Jad Salts (Wyeth Chemical Co., Detroit—not John Wyeth Bros., Philadelphia), consisting essentially of citric and tartaric acids, salt, baking soda, sodium phosphate and very small amounts of nexfic amethylenamin, lithium carbonate and potassium bicarbonate. Crane's Quinin and Tar Compound (Crane Medicine Co.), consisting essentially of quinin, sodium salicylate, ammonium chlorid, Epsom Salt, oil of anise, tar, menthol, table salt, calcium phosphate, sugar,

alcohol and water. Crane's Liver Pills (Crane Medicine Co.), consisting essentially of aloes and magnesium carbonate. Crane's Kidney Pills (Crane Medicine Co.), containing methylene blue, hexamethylenamin, plant extractive and iron sulphate. Tekol (Colonial Tablet Co.), containing ground celery seed and cocoa with about a half grain of caffeine in each tablet. Veronica Water (Veronica Medicinal Springs Water Co.), containing magnesium sulphate (Epsom salt), sodium nitrate, sodium chlorid (common salt), calcium bicarbonate, calcium sulphate and magnesium chlorid. (Jour. A. M. A., Sept. 15, 1923, p. 946).

So-called "Improved" Ethers. In 1919, Cotton declared that ethyl ether specially purified was not a good anesthetic, and that real anesthesia could not be obtained unless ether contained some potent synergist. He proposed the use of Cotton Process ether which was stated to be ether containing ethylene, carbon dioxid and ethyl alcohol. The manufacturer submitted Cotton Process Ether to the Council on Pharmacy and Chemistry, but so far, confirmation of Cotton's claims is lacking. Wallis and Hewer of England have also recommended a new general anesthetic with the claim that pure ether possesses practically no anesthetic properties, and that their product contains a mixture, in unspecified amounts, of ketones (identified only in vague terms) which have been treated previously with carbon dioxid and ethylene. This product has been placed on the market as "Ethanosal." It has received some endorsement, especially from Dr. H. E. G. Boyle of London, who made it the subject of addresses on anesthesia in this country. In contradiction of the claims made for Cotton Process Ether and "Ethanosal," Bourne and Stehle showed that ether prepared in a way to exclude impurities possesses the usual anesthetic properties. A painstaking investigation recently reported

by Dale, Hadfield and King confirms the generally accepted belief that the anesthetic action of ether is due to the ether itself. They also report their examination of "Ethanosal." They found "Ethanosal" to contain 95.5 per cent ether, 4 per cent normal butyl alcohol, and 0.5 per cent of a mixture of ethyl alcohol and an aldehyd and possibly traces of other substances. The investigation shows that there is no evidence to warrant attributing the anesthetic action of "Ethanosal" to any other constituent than the ether. On the contrary, the work shows that the anesthetic action of ether is improved by purification. (Jour. A. M. A., September 22, 1923, p. 1040).

Ethanosal. In 1921, Dr. H. E. G. Boyle of London read a paper before the Section on Miscellaneous Topics at the annual meeting of the American Medical Association. The paper dealt, in part, with so-called improved ether—"Ethanosal." The paper was not published in The Journal A. M. A. on the ground that The Journal does not publish articles on new remedies until those products have been reported on favorably by the Council on Pharmacy and Chemistry. The investigation of "Ethanosal" by Dale, Hadfield and King which makes plain the fallacy of the claims for the product, demonstrates again the advantage to the medical profession of a competent judicial body—the Council on Pharmacy and Chemistry—to investigate new additions to our materia medica. (Jour. A. M. A., September 22, 1923, p. 1025).

The Nature of Insulin. The manufacture of insulin from the pancreas is a costly and laborious undertaking. Therefore, the artificial synthesis is important. Before the prospect of a synthesis can be entertained, however, the chemical structure must be ascertained. Evidence is developing that insulin is protein in nature. Consequently the hope of its isolation as a chemically pure substance becomes slender. (Jour. A. M. A., September 29, 1923, p. 1117).

BOOKS RECEIVED

An Introduction to the Study of Mental Disorders, by Francis M. Barnes, Jr., M.A., M.D., Associate Professor of Nervous and Mental Diseases in the St. Louis University Medical School, Neurologist to St. Mary's Hospital, Consultant Neurologist to St. John's Hospital, Consultant Psychiatrist to the St. Louis City Sanitarium, Consultant Neuropsychiatrist to the U. S. Veterans' Bureau, Ninth District, St. Louis.

282 pages, price \$3.75, published by C. V. Mosby Company, St. Louis, 2nd edition.

Diseases of the Skin, by Richard L. Sutton, M.D., LL.D., Professor of diseases of the skin, University of Kansas School of Medicine; Former Chairman of the Dermatological Section of the American Medical Association; Assistant Surgeon, United States Navy, Retired; Dermatologist to the Christian Church Hospital.

1178 pages, price \$10.00, published by C. V. Mosby Company, St. Louis, 5th edition, 1069 illustrations and 11 colored plates.

Manual of Proctology, by T. Chittenden Hill, Ph.B., M.D., F.R.C.S., Instructor in Proctology, Harvard Graduate School of Medicine; Surgeon to Rectal Department, Boston Dispensary; Ex-President American Proctologic Society.

269 pages, price \$3.25, published by Lea & Febiger, Philadelphia, illustrated with 84 engravings.

Alcohol and Prohibition in their Relation to Civilization and the Art of Living, by Victor G. Vecki, M.D., San Francisco, Cal.

165 pages, price \$2.00, published by J. B. Lippincott Company, Philadelphia.

Rhus Dermatitis (Poison Ivy) Its Pathology and Chemotherapy, by James B. McNair.

215 pages, price \$4.00, published by The University of Chicago Press, Chicago, illustrated.

ALCOHOL AND PROHIBITION IN THEIR RELATION TO CIVILIZATION AND THE ART OF LIVING

Victor G. Vecki, M.D., San Francisco, Cal.

Doctor Vecki has given in his book an unprejudiced, comprehensive and clear exposition of the prohibition question, which is today, without doubt, the most vital question with which the country has to deal. The book should

prove particularly welcome to the medical profession, many members of which, in their practice, have suffered inconvenience and hardship through the restrictions placed on the sale of alcoholic beverages for medicinal purposes. Beside this, the author has shown the legitimate use as well as the abuse of alcoholic beverages, the desirability of temperance and the abuses in the interpretation of the enforcement of prohibition. Furthermore, and with the backing of facts, he shows what has been accomplished by prohibition so far, and who has been benefited by the drastic enforcement laws. In addition, the standpoint of the medical profession is made clear, a really hygienic manner of living outlined, and the way to the solution of distressing problems indicated.

The first chapter deals with alcoholic beverages in general and from there the author goes on to the discussion of the two sides of the alcohol question. Following this there are chapters on prohibition in relation to the constitution and in relation to personal liberty. Next there is shown what prohibition has so far accomplished in the United States, and who has been benefited by it. Beyond this, the interesting question as to whether prohibition can be enforced or not is gone into, followed by an exceedingly important chapter on prohibition as it affects the medical profession. There is next a chapter in which the author points out the possibilities of mitigating and even eliminating certain evils which have arisen through the drastic enforcement of prohibition laws, followed by one dealing with alcohol in relation to longevity. In the concluding chapter, "Kindness Versus Brutality", the author brings out the fact that the keynote of happiness is temperance in all things, and that temperance in prohibition is as equally desirable as temperance in drinking.

The American Journal of Roentgenology & Radium Therapy, the official organ of The American Roentgen Ray Society and the American Radium Society will appear in enlarged form in 1924, the increased pages being given to more illustrations, more abstracts and more original articles. Dr. A. C. Christie who was Colonel in charge of roentgenology in the U.

S. Army during the war will be the editor. Dr. James T. Case, Dr. H. K. Pancoast and Dr. W. Duane will be the associate editors with a large collaborating staff of the leading roentgenologists in the country. The subscription price is \$10.00 and Journal will be published as formerly by Paul B. Hoeber, Inc., New York.

PANCREATITIS AS RELATED TO GASTRO-INTESTINAL AND GALLBLADDER INFECTIONS

From clinical experience Seale Harris, Birmingham, Ala. (*Journal A. M. A.*, Nov. 3, 1923), convinced that a damaged pancreas, either from infection or from trauma, may be the active predisposing cause of diabetes. To prove this assertion four cases are cited. Diabetes is a disease characterized by impairment of the function of the insulin-forming glands in the islands of Langerhans, and is due primarily to trauma of the pancreas, or to a pancreatitis. Infections of the pancreas are usually secondary to lesions of the other abdominal viscera, though other foci of infection, as the teeth and tonsils, may be the primary cause. In treating diabetes, the primary cause of the disease should be sought for and removed, if possible. A deficiency diet is the predisposing cause to the intestinal lesions which seem to be an important source of infection in pancreatitis. An educational campaign teaching the public the importance of a diet containing the proper amounts of carbohydrates, fats and proteins, as well as sufficient vitamins and the essential mineral food constituents, Harris believes, would prevent diabetes to a large extent. In the treatment of diabetes, due regard should be paid to the vitamin and necessary mineral constituents of food.

THE TIME ELEMENT IN GALLSTONE FORMATION

Angus L. Cameron, Minneapolis (*Journal A. M. A.*, Nov. 17, 1923), reports a case in which it was positively determined that numerous and well-developed calculi formed in a human gallbladder within a period of eighty-six days.

FOOLING THE FAT

"It would be unfair to say that all fat persons eat too much and take too little exercise, but it is certainly true that most of them do—as do also many who are not fat. And it is the overfed, underexercised individual who thinks that somewhere there must be a panacea that, without effort or self-denial, will transform what the corsetieres euphemistically call "stylish stouts" into "boyish-form" "lissomeness". Thus Dr. A. J. Cramp, in the December issue of *Hygeia*, introduces a description of a particularly glaring example of the fake remedies that can reduce nothing but the pocket book of him or her who "falls for" the bunk contained in the advertisements. This particularly crude example is known as Slenda-form and is found on analysis to consist of what is practically turpentine and vinegar mixed to sell at \$5 a jar. This mixture is to be rubbed into the skin and not taken by the mouth.

Intravenous Use of Diphtheria Antitoxin

Sixty-five patients with laryngeal diphtheria were admitted during the year covered by this report made by Howard Osgood, Buffalo (*Journal A.M.A.*, Oct. 27, 1923). Fourteen received antitoxin intravenously as well as intramuscularly. They were, as a rule, the most severe cases. The mortality rate for these fourteen cases was practically the same as for the entire group of sixty-four cases. There were four fatal cases in the intravenous group. All these patients had extensive faucial or nasopharyngeal, as well as laryngeal, membrane, and three had bull neck. Considering the fact that the fourteen intravenous cases were more severe than the average, many of them being mixed types, Osgood feels that the mortality would have been much higher among them had it not been for the antitoxin given intravenously. Except for one patient, who developed a mild laryngeal paralysis and wore the tube for seventeen days, the patients with non-fatal intravenous cases wore their tube for an average of two and one-half days, as compared with an average of four days for the entire group of sixty-four cases. One hundred and seventy-two patients with nasal and faucial diphtheria were

admitted during the year. Forty received antitoxin intravenously as well as intramuscularly. The condition of most of them was very severe or malignant in type. The mortality in the intravenous group was 42 per cent, against 12.2 per cent for all the nasofaucial cases. The remaining 132 patients received their antitoxin intramuscularly only. Among the latter there were four deaths (3 per cent mortality). Four-fifths of the nasofaucial cases terminating fatally were in the intravenous group.

HODGKIN'S DISEASE AND LYMPHOSARCOMA

Arthur U. Desjardins and Frances A. Ford, Rochester, Minn. (Journal A. M. A., Sept. 15, 1923), have analyzed the histories of 135 cases of Hodgkin's disease, and 102 cases of lymphosarcoma treated during the five-year period 1915-1919. Ten of the Hodgkin's disease patients are living, and nine lymphosarcoma patients are living. On reviewing the histories, the authors were impressed by the frequency with which the adenopathy seemed to have a more or less definite relation to common chronic lesions around the mouth and throat, such as bad teeth, diseased tonsils and nasopharyngeal infection. Necropsy findings were available in very few of these cases. In the 135 cases of Hodgkin's disease, definite metastatic lesions were noted in but six instances; in four, it was pulmonary; in one case, there was a subcutaneous tumor between the eyes; and in one, the liver was involved. In the lymphosarcoma group, metastatic foci were noted in the lungs in three cases, in the cecum and left kidney in one; in the suprarenal in one; in the liver in four; in the right tibia in one; in the sternum and right fibula in one; in the abdominal wall in one, and in the chest wall in four. One of the important items of information derived from this study is the average duration of the disease. The patients included in these two groups were treated in various ways. Some were given vaccines; some arsenic; others, tuberculin; many had more or less irradiation treatment, and others had block dissection, alone, or fol-

lowed by irradiation. Many were treated symptomatically; the majority did not receive systematic treatment. The results do not supply sufficient data on which to base conclusions with regard to the value of any one form of treatment.

ACHLORHYDRIA IN GALLBLADDER DISEASE

Achlorhydria or hypo-acidity occurred in 45 per cent of 192 patients with gallstone disease whose histories were analyzed by Gatewood, Chicago (Journal A. M. A., September 15, 1923). The incidence of achlorhydria is not significantly influenced by age, jaundice, or by the location of the stone. Achlorhydria does not follow cholecystectomy frequently enough to justify abandonment of the operation in the presence of a definite pathologic condition. Achlorhydria, or absence of free hydrochloric acid, is of definite value as a diagnostic acid in doubtful cases of upper abdominal disease.

MODERN MEDICINE

When the doctor gently chides the patient who has wasted vitally valuable time chasing the latest advertised panacea, the victim always has a "comeback." He—or, more often, she—retorts that the medical profession is always opposed to new methods of treatment. There is no gainsaying the fact that ancient and medieval medicine was narrow and ecclesiastical in its attitude. At that time medicine was not a science, but a more or less imperfect art. It attracted, it is true, many brilliant minds, but it also had in its ranks a large preponderance of mystics and charlatans. What we know today as the science of medicine is of recent growth. The application of modern scientific methods to the study of the human body and its processes has produced results as far-reaching in their scope as any accomplished in other fields of human endeavor. Moreover, by employing the methods of the twentieth century both to the study of medicine and to the organization of the medical profession, charlatanism and mysticism have become the excep-

tion instead of the rule in medicine. The modern medical quack and faddist is but an excrescence. The result of all this has been to raise enormously the standard of the collective judgment of the medical profession. A careful review of modern medicine will show that in not one instance has the mass judgment of physicians been at fault in condemning methods of treatment that have failed to meet the exacting requirements demanded by the doctor of today.—Hygeia.

ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE MEDICAL ASSOCIATIONS

This conference was held in Chicago November 16 and 17, 1923, at the office of the American Medical Association.

After introductory remarks by the Secretary, Dr. Olin West, Dr. Walter F. Donaldson, Pittsburgh, Pennsylvania, spoke on what measures can be initiated by county, district and state medical societies for increasing organizational efficiency and for the promotion of the professional and economic status of the physician.

In his opinion the fundamental qualifications for the thorough organization of any county or state medical society are membership in a scientific body and money. To have every eligible physician a member of the county medical society, in Pennsylvania the county secretaries furnish a list of eligible and noneligible physicians. They have them on file in their offices and furnish these lists to the secretary of the state society.

Scientific interest is the basis of any successful organization. He knows of no more pitiful condition than that of a state medical society being in the position of passing the hat for money at its meetings. In Pennsylvania they try to keep the annual dues of county medical societies high enough to have a surplus. The state society aids the district societies in furnishing attractive and scientific papers. Every county medical society should hold membership in the Chamber of Commerce or Board of Trade of the county seat of that particular county. Practically every chamber of commerce has a committee on public health and hygiene, and

what can be more reasonable than for the secretary of the county medical society to be chairman of that committee. With the adoption of such a plan, business men would appeal to local and county medical societies for advice rather than to nursing organizations, the Red Cross, etc.

Post-Graduate Courses and Clinics

Dr. Allen H. Bunce, Atlanta, Georgia, discussed postgraduate courses for county societies, saying the greatest obstacle they had to overcome in Georgia has been indifference, and the most effective measure to overcome this is persistence. In 1921 the first postgraduate course for members of the State Association was held in Atlanta in connection with the Emory University School of Medicine, the State Board of Health, and the Venereal Disease Division of the Public Health Service. This course consisted of clinics, ward walks, lectures and laboratory demonstrations. On account of the success of this first course they determined to try to hold these courses in different parts of the state so that more men could be reached. The next course was held in Augusta in connection with the Tenth District Medical Society. In 1922 they started to give these courses in the County societies. In addition to these general courses they have with the co-operation of various civic bodies held special courses and clinics on various subjects. The pediatric courses have been well attended.

Dr. Frank Billings, Chicago, spoke on diagnostic clinics, and said that while the American Medical Association can assume leadership in this matter and attempt to formulate standards and methods of postgraduate instruction, the real work itself must be done either by the state or by the component county societies. To bring methods of diagnosis to practitioners in the form of clinics is one of the practical methods of teaching the practitioner how to do his work.

Dr. W. G. Ricker, St. Johnsbury, Vermont, discussed the program for regular meetings, the aim and purpose of these meetings. He described a typical meeting with a program covering three or four or more half day sessions. The public health worker and the practitioner should work hand in hand. Affairs of public should be presented by public health workers and by phy-

sicians in general practice, and a free exchange of ideas along these lines will not only be illuminating but tend to co-operation between all concerned.

Dr. J. F. Hassig, Kansas City, Kansas, in speaking of fee schedules and collections said that the average physician is generally regarded as a poor business man, who in the race of life suffers economically because of his business ineptitude. He favors a chair of business administration in every medical college. In every community there are doctors in good standing and repute who do not place a high enough value upon their services. These men demoralize the patients by inadequate charges and people get the wrong viewpoint as to paying for medical services and grow indifferent to their obligations to the physician, with the result that the profession as a whole suffers. He referred to the abuse of the free clinic and the fee which would rightfully and honestly go to the doctor is diverted from its proper channel, and the man who can and will not pay is simply a grafter. He referred to contract practice and to fee splitting. In Kansas they have a state law prohibiting fee splitting, but it is impossible to enforce it because they are unable to get sufficient evidence to convict. Fee schedules may be arranged by county societies or groups of physicians, but there can be no uniform charge. In the final analysis the individual doctor must decide what is a just and proper charge to make.

In the discussion of these papers, Dr. William Allen Pusey, Chicago, President-Elect of the American Medical Association, referred to the renewed interest taken in diagnostic clinics, and said that he is more and more convinced of their value. These clinics are best when given to small numbers.

Dr. Ray Lyman Wilbur, President of the American Medical Association, said that the members of the medical profession are the ones to carry correct information concerning medical matters to the public. Medicine is ever expanding and developing and every physician has to keep up with the march of progress. Members of the medical profession should watch legislation to see that it protects the public health primarily. The use of diagnostic clinics is par-

ticularly valuable in bringing the members of the profession together so that they may learn to know one another.

Dr. F. C. Warnshuis, Grand Rapids, Michigan, called attention to the remarks of Drs. Donaldson and Bunce, saying that Dr. Bunce had pointed out the value of postgraduate courses and of mapping out programs for the work of county societies. If county societies are stimulated to take sufficient interest to get doctors into them and make them feel they will be better able to meet the demands of the public, the profession will have exercised its greatest organizing influence.

Dr. B. L. Bryant, Bangor, Maine, said that very few societies have money enough to work with. This is especially true in the small rural communities. In Maine they have a better organization of county societies, and the time is coming when they hope to show the importance of raising the dues. At present the dues of the Maine Medical Association are \$4.00.

Dr. Rock Sleyster, Wauwatosa, Wisconsin, stated that the Wisconsin State Medical Society raised its dues from \$4.00 to \$9.00 last year. They now have a full time secretary. They have not lost a member by raising the dues.

Dr. Holman Taylor, Fort Worth, Texas, said that their state society dues are \$5.00. They have saved \$55,000 since 1905. They have spent three or four thousand dollars at each session of the legislature in protecting public health.

Dr. T. B. Throckmorton, Des Moines, Iowa, said that if the American Medical Association could make arrangements to send representatives to the various state meetings, it would be beneficial not only to the state societies as a whole but to the home office of the American Medical Association in general.

Dr. Wendell C. Phillips, New York, in speaking of diagnostic clinics said that members of the profession flocked to them to get the information and education which they desired. In New York the State Medical Society had raised its dues and had not lost a member by so doing.

Dr. Austin A. Hayden, Chicago, said there is a wave of postgraduate instruction passing over the country which means that men are eager to receive a message if there is a message to be

delivered, and this wave is entirely away from the operative clinic.

Dr. Emma W. Pope, San Francisco, stated that the four teaching schools and the 28 accredited hospitals are co-operating in giving opportunity for study to graduate physicians.

Afternoon Session

How can the Medical Profession in its organized capacity best inform the public concerning the benefits that scientific medicine makes available?

Dr. Carl B. Drake, St. Paul, Minnesota, read a paper on this subject. He said that each county society can do its part in educating public opinion. In the smallest society each member should consider himself a committee of one to spread the facts of scientific medicine to his patients and acquaintances. Each county society should have a publicity committee, and it should be the special function of such committees to maintain a list of physicians available for public activities, such as those in connection with cancer week, child health days and radio talks. The state medical association is in a position to do much more than the county society in an educational way. The activities of the legislative committees of state associations are distinctly educational. A closer relation between county and state societies and educational institutions is most desirable. The Bureau of Legal Medicine and Legislation of the American Medical Association under Dr. Woodward facilitates the work of state legislative committees. The American Medical Association is in a position to furnish valuable information on medical matters of national interest and importance. The American Associations should consider seriously the production of movies portraying medical matters.

The Plan of the State Medical Association of Texas

Dr. Holman Taylor, Fort Worth, Texas, spoke on this subject, saying that in his state during the past ten or fifteen years he has become convinced that if they are to handle the legislative situation in medical matters they must give the lay people a working knowledge of medicine. In 1907, when they passed a medical practice act, they undertook to educate legis-

lators on medical matters and succeeded admirably. In a few weeks they developed a legislature that was 90 per cent. favorable to the medical profession. Their board of councilors has been authorized to raise a fund of not less than fifteen thousand to twenty thousand dollars for the use of the Council on Legislation and Public Instruction for the purpose of educating the people. In Texas they are not going to the public merely to show the view which the regular profession has of the so-called cults and sects, quacks and fakers. It is going to be a public health matter, and they are going to educate the public that a standardized medical profession is the first principle in public health; that there cannot be any public health without an educated, ethical, honorable, and high-mined standardized medical profession.

The Functions of the Bureau of Health and Public Instruction of the American Medical Association

Dr. John M. Dodson, Chicago, spoke on this subject, and among other things said that this Bureau assists in the business of giving authoritative instruction and the necessary information to the non-medical public. Its functions are the general education of the public. Speaking of the relation to teachers and children, he said we must be careful lest we stress too much the idea that health and the efforts to obtain health are merely matters of dodging disease. Some of the leading thinkers in the educational world are of the opinion that we stress disease too much in the minds of children so that we get them thinking of disease and of becoming hypochondriacs rather than turning our attention toward the business of developing strong, vigorous, efficient bodies and a happy healthy people.

Speaking of Hygeia, he said an effort has been made to make it as attractive, interesting and authoritative as possible. It is not easy to get articles; it is much more difficult to get the right kind of articles written in the right way. The editorial board welcomes suggestions, comments and criticisms of Hygeia at any time.

As to the education of the public by word of mouth, addresses, radio broadcasting, etc., he said that the old speakers bureau was abandoned

at the time of the war and it has not been revived. It is important to provide material for speakers and to assist them in procuring this material for the making of such addresses. It does not seem wise to him for the American Medical Association at this time to attempt to prepare movie films for sale or rent as it can be much better done by organizations engaged in that business, but there are large numbers of educational films along medical and health lines which are to be had.

As to periodic health examinations, when a man or woman presents herself to a physician, he or she should get value received; that the proper conduct of that examination should hook up with the physical findings found, and the patient should get an examination worth while for the fee which is to be paid.

Educational Effort Through the Public Press

Dr. E. J. Goodwin, St. Louis, Missouri, said the press today is apparently more in sympathy with reputable medicine than it was a few years ago. Progress in education in all walks of life has made great strides since the American Medical Association demanded that it shall be evident to the medical profession that the colleges accept only persons who have had some evidence of medical education equivalent to a comprehension of the problems in medicine. In going to the public press we have got to recognize the fact that the press has its own methods of presenting material that is furnished to it. They will not publish anonymous articles. Matters of information should begin with the county societies on up through the state societies and into the American Medical Association. What shall be said and by whom it shall be said, is a matter for the county, state and national societies to govern. Members of the medical profession should confine themselves to matters that interest the public from the standpoint of health, hygiene, sanitation, preventive medicine, and the development of curative medicine.

Dr. J. F. Gallagher, Nashville, Tennessee, discussed the attitude of the medical profession toward cults. He said the regular medical profession is the only group who offer themselves for the prevention of disease and the amelioration of suffering and prolongation of life, that has stood the test of time. The great number of

cults and their constant recurrence are a real menace to society, although not a very dangerous one. We would not be upholding the traditions of the profession if we did not inform the people of the existence of a menace whether it be smallpox or chiropractic. But this must be done in a manner that is free from any suspicion of greed or gain or sordiness on our part, and with the dignity that is also a tradition with the profession.

The most practical plan in dealing with the cults which will produce the quickest results is legislation. There should be the passage of laws requiring certain educational qualifications. These qualifications should embody a reasonable preliminary education and a knowledge of the cause, nature and prevention of disease. The medical profession need have no fear of its place in the hearts and minds of the people so long as its members maintain the cherished heritage of our ancestors of science, humanity and truth.

In the general discussion Dr. W. D. Chapman, Silvis, Illinois, does not believe in placing prime importance on the matter of legislation in dealing with cults. In the daily work of the medical profession the practitioner who feels that the member of any cult is his competitor is doing himself and his patients injustice. Patients who leave a practitioner for a while and experiment with the cults come back presently. They are better satisfied and better patients than they were before. There is nothing for the medical profession to fear about cults.

Dr. Walter P. Bowers, Boston, Massachusetts, said the Medical Society of Massachusetts conducts at regular intervals public meetings throughout the different districts and has made special effort to invite the public so that they may be informed of facts relating to public health and the important questions of preventive medicine. The cults have never been attacked. In Massachusetts they have succeeded in maintaining a single standard of medical practice, and it has worked out remarkably well.

Dr. W. P. Eagleton, Newark, New Jersey, stated that in his state in 1920 they built up a medical practice act after years of hard labor which is operating very well. The medical profession of New Jersey regard it as their job

to tackle every health problem that is presented in the legislature or by any county society.

Dr. C. L. Booth, Portland, Oregon, said that in January next they have some pernicious bills coming up, one asking the committee to establish a separate board for chiropractors, and another one allowing the osteopaths practically the same privileges as members of the medical profession, that is, allowing them to do major surgery and to use all sorts of drugs, although they were not examined in these subjects. They started their fight by getting in touch with medical men in various parts of the state and having them work on committees and using their influence on legislators in the various districts. They knew where every legislator stood toward medical education and toward the cults, and as a result the pernicious bills that came up were killed.

Dr. Charles M. Yater, Roswell, New Mexico, said that when any medical subject comes up before the legislature in New Mexico they are neither democrats nor republicans, but are all doctors.

Dr. Allen H. Bunce, Atlanta, Georgia, said that they have tried to maintain contact with the public through their Committee on Health and Public Instruction by having a strong committee whose members are appointed for three years. They have other problems to face in Georgia besides the cults, such as the problem of directing the public health activities of women's clubs, clubs concerning child hygiene, the tuberculosis association, the cancer association, etc. The members of the Medical Association of Georgia believe that this matter should be governed by the county medical society. They tried to convince the members of the state board of health of the advantages of co-operation in this work. They have done this through their Committee on Health and Public Instruction by getting them to co-operate with lay organizations, forming a state health council which has membership from the state association and various women's clubs, with delegates from the various civic organizations throughout the state, and up to the present time they have this work established in 90

counties. The object is not only to teach the public on medical subjects but to direct their energies into the proper channels.

Dr. Wendell C. Phillips, New York City, outlined what had been accomplished by the Medical Society of the State of New York, and said that New York State has had no trouble with adverse medical legislation which was detrimental to public health.

Dr. Morris Fishbein, Chicago, spoke of the way in which the American Medical Association is trying to use the newspapers in disseminating medical knowledge. To use the newspapers properly, it is necessary to study the way in which newspapers work. Newspapers demand that material be prepared especially for them.

Dr. Edward H. Ochsner, Chicago, said we are going to be asked within the next five years to assimilate a large number of osteopaths, a few of whom are well trained, but a very large number of them utterly incompetent. Osteopaths are hard pressed, nearly all of their patients having been taken away from them by chiropractors and other cults. He said we are literally teaching men in our medical schools today not to become practitioners of medicine but professors of medicine, and unless we begin to teach our medical students the things they need in the practice of every day medicine, we will have to meet the osteopathic situation within the next five years.

Dr. Oscar Dowling, Shreveport, Louisiana, said he frequently got complaints from people. Two ladies called on him and told of different doctors whom they consulted. These doctors casually looked them over and were unable to tell them what their condition was. They were not any better after passing through the hands of these physicians. He knew of instances where there has been a mistake in diagnosis due to the fact that the doctors had not taken time to make a careful examination and find out the condition then existing.

Dr. D. C. English, New Brunswick, New Jersey, cited an instance which corroborated what was said by Dr. Ochsner regarding defects in the education of medical students.

Dr. John B. Morrison, Newark, New Jersey, said that if we insisted in every state that a

proper preliminary education must be obtained by every man before practicing medicine, and insist on a knowledge of the fundamental ideas of medicine, anatomy, physiology, physiological chemistry, bacteriology, and the etiology of disease, we could let them practice any cult they liked and we would have the public backing us to a large extent.

Dr. E. G. Balsam, Bilings, Montana, referred to the importance of the American Medical Association sending representatives to the state society meetings.

Dr. H. J. Rowe, Minneapolis, Minnesota, stated that in North Dakota at their meetings they do away largely with the reading of papers, but have the members who have cases that puzzle them bring the patients to the meeting and have the members go over them carefull, talk about them and learn something, and they get better results by so doing than by reading papers.

Dr. Olin West, Chicago, said that the Amer-

ican Medical Association has made a sincere effort to send representatives to every state association or to every district society; that the association is always anxious and willing to do the best they can to render any service to any society that is possible.

Dr. William C. Woodward, Chicago, said the question is not whether the organized medical profession has anything to fear from the cults, but the question is whether the people have anything to fear from the cults, and it is from that standpoint alone we need most to concern ourselves.

November 17, 1923—Second Day Morning Session

A considerable part of this session was taken up with comments and criticisms of Hygeia, and the discussion was participated in by several members.

(To be continued)

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THE FINDING OF SPIROCHAETA PALLIDA IN OSTEOMYELITIS BY DARK FIELD ILLUMINATION WITH A REPORT OF THREE CASES

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While the dark field illumination is extensively used as a diagnostic measure in searching for spirochaetae in the primary and secondary lesions of syphilis its use in tertiary lesions is not at all customary. The finding of spirochaeta pallida in late lesions of syphilis has been practically confined to the more laborious and uncertain staining methods and their location in sections of tissues. The dark field method of examination is admittedly the best and surest way of finding spirochaetae since they stain poorly. With this method the characteristic motility of the organisms aids both in locating them and in distinguishing them from artefacts and other spirochaetae. The presence of spirochaeta pallida in all known forms of tertiary syphilitic lesions has been proved by staining methods, and it seems as if nothing but tradition and custom has prevented the use of the dark field illuminator as a diagnostic aid in many of the more active late lesions of syphilis. The search for spirochaetae in these cases requires more time than in primary and secondary cases but is well worth while since a certain diagnosis is not possible by any other means. The Wassermann reaction is usually negative or at best weakly positive, and the clinical signs and symptoms are only suggestive, while the history may not be conclusive.

The technique of obtaining the specimens is very important. The spirochaetae are most

abundant in the margins of the ulcerated areas and found in the sero-sanguineous fluid from these edges. The ulcerated area should be wiped clean of pus and necrotic tissue with dry sterile gauze, then the edges of the ulcer are traumatized until a blood-tinged serum exudes. This fluid may then be transferred to a clean slide by means of a capillary pipette, or by pressing the slide over the ulcer if accessible. A coverslip is placed over this fluid immediately to prevent drying. The examination should be done as soon as possible while the organisms are still motile.

Recent literature calls attention to the tendency of traumatism to cause active syphilitic lesions at the site of trauma in cases of latent syphilis. This emphasizes the importance of using every available means of diagnosis in cases of osteomyelitis not responding to the usual methods of treatment.

Case 1

Name: T. W. W. Age: 2 yrs. Male.

Diagnosis: Osteomyelitis of the tibia, lower third. Right.

History: July 16, 1921. Child has a swollen right ankle. He began to limp three weeks ago before the swelling began. There is no history of tuberculosis in the family. Mother has had no miscarriages. Child walked until yesterday. The right ankle is much swollen mainly over the internal and external condyles. Has several sores on the leg. Glands are enlarged in both groins. In the right iliac fascia there is a gland enlarged to one-half inch. Temperature 101° degrees daily.

July 21, 1921. Wassermann, 2 plus.

Aug. 4, 1921. Operation. Sequestrectomy. Incision was made over the swollen fluctuating

area at the distal end of the tibia. An abscess containing 4 drams of yellow thick pus was evacuated. The abscess was extra periosteal but communicated with the bone by a sinus. Periosteum was removed from a small area of the bone for drainage. No chiseling of the bone was done. Wound cleaned with iodine and alcohol.

Aug. 8, 1921. Pus culture: Dr. Kelly; staphylococcus aureus; streptococcus non-haemolyticus; contamination with *B. subtilis*.

Sept. 8, 1921. Wassermann: Negative.

Sept. 15, 1921. Operation. Removal of diseased bone from lower end of right tibia.

Sept. 15, 1921. X-ray shows a well defined circumscribed area of disease in the lower end of the right tibia about 2 c.m. long and 1½ c.m. wide.

Oct. 20, 1921. X-ray does not show a sequestrum. There is a rarified area in the lower end of the tibia at site of the disease. The lower end seems to have penetrated in the ankle joint though this is not certain. There is a swollen place on the outer side of the ankle over the fibula, the center of which is soft and motley red but does not seem to be painful when moved. Heat to be applied to the dressing constantly.

Oct. 27, 1921. Operation. Small abscess over the lower end of the tibia was opened. The inner side of the fibula seems to be involved and the process seems continuous through to the outer side. Probably the ankle joint is involved.

Nov. 1, 1921. Foot is quite swollen and child is in pain. Foot is in plaster at right angle to the leg. Plaster splint and having daily dressings.

Nov. 10, 1921. Disease is quiet, sore foot has been in plaster. Child has no pain even though pus organisms were found in the recent operation. One expects that it is probably a mixed infection of tuberculosis and pus germs. Continue cast fixation and dressings.

Nov. 15, 1921. In regard to the question of syphilis the patient has had mercury rubs for a certain period. We were not able to administer salvarsan on account of the small veins. Mixed treatment begun.

Nov. 29, 1921. Differential Count. Poly-nuclears, 45%; small lymphocytes, 48%; large lymphocytes, 7%.

Dec. 8, 1921. Dressing is saturated with a thin greenish yellow odorless pus.

Dec. 8, 1921. Dark Field Illumination; spirochaeta pallida present. Culture from wound. Negative for diphtheria bacilli. *B. pyochaneus*, streptococci and staphylococcus albus present. Dr. Klugh.

Dec. 13, 1921. Referred to Dr. Champion.

Jan. 3, 1922. Swelling and infiltration have disappeared rapidly since beginning specific treatment. Granulations active, still some slough on the floor of the wound, inner side. Swelling has diminished so that the foot is loose in the cast.

Jan. 5, 1922. New cast applied.

Jan. 17, 1922. Foot seems to be getting well.

Case 2

Age: 25 yrs. Male.

Diagnosis: Osteomyelitis left tibia, lower third. Goes into hospital.

History: March 18th, 1921. Operation. Not a great deal of disease found, nor sequestrum, more of an infiltration of the skin and periosteum, with some disease of the bone. Disease chiseled out and infected skin cut away. Dakin's begun.

April 20, 1921. Operation. Raw area covered by one large Thiersch graft.

May 17, 1921: Goes home. Healed.

Dec. 16, 1921. (Patient's Statement). About Dec. 1, 1921 leg became ulcerated again following slight blow at site of healed lesion. Wassermann Tests negative.

Dec. 17, 1921. Dark field examination showed presence of spirochaeta pallida.

Have not been able to get further history.

Case 3

Age: 17. Female.

History: Since 1914 patient has had trouble with her right ankle. It began like a sprain and about Oct. 1914 began to discharge pus. Later the hip became involved. The bone has been "scraped" twice during this time.

Examination: The ankle joint seems free, but the tendo achilles is contracted, and the foot is limited to less than a right angle. There is evidence of extensive osteomyelitis of the tibia, several old sinuses, some discharging pus at

present. Knee seems to be normal. The hip is ankylosed with moderate flexion abduction deformity. Several old sinuses in this region, and near the anterior superior spine is still active. It has discharged for three years.

Three months ago pus developed about the left knee. Was lanced twice and is now closed, and there is no permanent damage to the knee.

Has two, small sinuses in the right arm from which she says several small bits of bone have been discharged. Has one bad tooth root.

X-rays made at the Georgia Baptist Hospital show chronic osteomyelitis of the tibia, firm bony ankylosis of the hip, but not any sequestra.

Wassermann four plus.

Oct. 1, 1921. Is improving on Salvarsan and mercury, one sinus closed.

Oct. 18, 1921. Has had four Salvarsan injections with marked improvement.

Jan. 2, 1922. Two open discharging ulcers over tibia.

Jan. 4, 1922. Dark field positive. Salvarsan again ordered.

Jan. 9, 1922. Improved after two doses of Salvarsan.

Cases from the service of Dr. Michael Hoke.

LOCAL ANESTHESIA IN NOSE AND THROAT SURGERY

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The question of local anesthesia in nose and throat surgery does not differ from the same form of anesthesia in surgery of a general nature, or of a special nature on other parts of the body. I have reached the conclusion that it is not the question of the form of drug used in a complete or partial local anesthesia, but rather the attitude of the surgeon towards the operation in mind. Cocaine in weak solutions, or any of the synthetic preparations, can be effectual so far as the matter of pain is concerned, in the hands of any surgeon or specialist. A technic can be perfected from experience which will make it possible to use cocaine or any non-toxic preparation in quantities which will exclude all pain, but this in my mind is only a part of the success which may surround an operative procedure. The purpose of an operation is not accomplished simply by per-

forming the operation without pain. I am of the opinion that too many of us have approached the matter of local anesthesia and its so-called successes from the wrong angle. We are treating too lightly the surgical operation, simply because it may be performed without pain to the individual, and as a result of this, we are undertaking to do too many operations without regard to diagnosis, the seriousness which may be associated with the operation, the shock resulting from it, and the final result attending it.

I approach with caution, all operative procedures from the simplest opening of a minor abscess of the eye-lid, to the radical mastoid or a radical frontal. The same preparation is made for a case where local anesthesia is contemplated, as if a general anesthetic was used. I shall not deal with any form of technic used in nose and throat surgery as regards local anesthesia except in a general way. I have found that the preparation of the patient in the matter of diet, aids more in successful local anesthesia than anything else. In withholding food and liquids we do not have the unpleasant situation of nausea and vomiting of food-stuffs, nor the effort to empty a stomach full of fluid. I have found that a preliminary hypodermic of morphine grains $\frac{1}{8}$ with scopolamine grains $\frac{1}{200}$, one-half hour before the operation, places the individual in a mood of indifference to what might occur during the operative procedure. A great many of us use about twice as much of any preparation as may be reported on the operative history blank, for instance, in swabbing the throat or the nose with cocaine preliminary to a tonsil or septum operation, we may not take into account the amount of cocaine that drips from a wet or soggy sponge or mass of cotton. We are thinking only of the amount that we expect to be absorbed by the tissue, and omitting to think of the amount which has trickled over a good big area around the operative field. It is my practice to squeeze out these cotton sponges or swab, and apply what may be called a dry sponge with absorption only of whatever fluid may occur from force and contact.

In sub-mucous resections and turbinate work, a five per cent solution of cocaine with an equal amount of adrenalin, is applied to the operative surface on cotton swabs squeezed out as above

explained. In tonsil work, a one-half of one per cent solution of novocain with four drops of adrenalin to the ounce, is injected around all margins of the tonsil. The matter of post-operative treatment is important after a local anesthetic. My tonsil cases remain in the hospital twenty-four to forty-eight hours after the operation. I want here, to lay stress upon the importance of doing the operation in the hospital. If a surgeon would surround himself and patient with the greatest safe-guards to meet any emergency or danger which may arise, the psychic effect of this could be seen upon both surgeon and patient, and naturally, surgical results of a pleasing nature will follow.

I do not believe in attempting to do an operation with sterile water as an anesthetic. We know that certain drugs have a certain effect upon nerve tissues, and that local anesthesia can be obtained by their use. We have learned that it can be given in such quantities as to make local anesthesia complete without danger, which methods should be employed, and I feel that any effort to deceive the patient will work harm as a general thing. The question of bleeding is a matter which can be controlled in local anesthesia. It has been my experience, however, that it is not necessary to use as much adrenalin chloride as heretofore has been thought necessary. A small amount of adrenalin will control bleeding, and at the same time allow natural hemostasis to occur. It has been said that nothing succeeds like success, and a surgeon's first fifty successful operations under local anesthesia, will be followed by fifty more with even greater success, but this is not true unless a technic is employed which warrants confidence. It has been my experience that local anesthesia can be carried to a greater variety of patients, without danger than could be promised for any form of general anesthesia. I have operated upon children twelve years of age under local anesthesia, removing adherent tonsils, and also on patients sixty years of age for the same condition. We do not hesitate to operate upon cases with heart lesions, which would be a dangerous undertaking with a general anesthetic.

The one point in this paper which I would like to stress, is that it is dangerous to approach

what may be thought a simple operation because it can be performed under local anesthesia without pain, and because of such attitude take chances which would not be possible under a general anesthetic. Hospitalize cases, prepare them for the operation, making the patient comfortable during the operation, and treat them as a surgical case afterwards. Follow a definite plan in doing this, and the field of surgery under local anesthesia will widen, and finally less criticism will come to us all because of occasional misfortune, which attends what may be a radical operation, carelessly approached.

RELATION OF INDUSTRIAL INJURIES TO DISEASE*

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In discussing this subject, acute infections, deformities and other disturbances following injuries where the injury and disturbance are so intimately associated that their relations are not debatable, will not be considered. The puzzling problem in industrial surgery is, whether or not the disease for which the injured is attempting to recover damage is post hoc or proctor hoc.

Diseases most commonly associated with industrial injuries are mainly of the mind and nervous system, thoracic viscera, circulatory system, bony structures and joints, abdominal viscera and kidneys.

At the outset every injured person falling into the hands of a physician where future litigation is liable to arise, should be examined most carefully. In untold instances surgeons have to go before juries uncertain as to whether a disease developed before or after the injury. Every patient should be given a most careful physical examination directing the activities not only to the injured part but to the whole body. Most careful consideration should be given the psycho-neuric system, lungs, heart, abdominal viscera, and the kidneys, also an x-ray study of the chest should be made, as tuberculosis in many instances may be detected in this way, and tuberculosis is one of the most common causes of

*Read before The Railway Surgeons Association of Georgia, August 15, 1923.

litigation. A blood Wassermann and urinary analysis should always be made.

MENTAL AND NERVOUS DISEASES.—

Traumatism is not even listed by neuro-psychiatrists in the category of causes contributing directly to neuroses and psychoses. Were I asked to name the most common cause of these maladies I would say heredity, environment and syphilis. These three play a more important part in the disturbances of the mind and nervous system than all of the other causes combined. Much is said about toxicity, drugs, alcohol, overwork and other disturbances producing neuro-psychoses, but if a careful study would be made it would be found that one or more of the aforementioned factors is the source back of it all. Mild, hereditary aberrations of the mind and nervous system are often fanned into violent neuroses and psychoses by environment.

The fear that one is not going to get the desired amount of money from a corporation on account of slight injuries, too, often sets aflame pre-natal and syphilitic defects of the mind and nervous system that had previously been quiescent.

No one knows as well as the doctor how promptly an application *quantum sufficiat* of Uncle Sam's yellow back pain relievers cures a psychosis or neurosis. For this reason one should make a study and investigation of the patient's heredity and social status. Poverty where the patient previously had means, lack of a lucrative position where one previously had been held, dissipation, domestic infelicities, lack of employment and various other social complexities are often the causes of neuro-psychoses while the patient gladly, eagerly, cunningly, willfully and designingly attempts to shift these causes to the injury. Since syphilis plays such an important part in mental and nervous diseases it is always exceedingly important for the surgeon if possible to learn in advance whether or not this disease exists. In taking such precautions he places himself in a position where he can serve better in an effort to mete out justice to all.

THORAX.—Tuberculosis is the most insidious, treacherous and uncertain of all other diseases with which we have to deal and is the least understood, so one should make every effort

to find out whether or not the injured had diagnosable tuberculosis previous to the injury. Traumatism cannot produce this disease. It can only induce it in a remote way. In other words, injured tissues may be invaded by tubercle bacilli more promptly than non-injured, but in the lungs these germs must already be present. Tubercle bacilli act slowly and it is practically unknown for injured tissue to be invaded primarily by these germs. A person may have previously contracted the disease, his vitality may have been lowered by the injury thereby lighting up a latent process. No doctor is justified in saying that an injury produces tuberculosis. All that he can say is that the injury may have caused an already existing disease to become more active.

Traumatic pneumonias can be produced only by contused wounds entering the pleura or lungs, broken ribs traumatizing the pleura, or tearing previously existing adhesions of the pleura. The tearing of adhesions is often the cause of hemorrhage into the pleura, the etiology of which having in the past been so puzzling. The previous statement does not apply to lobar pneumonia or broncho-pneumonia. Time will not warrant a discussion of the differential points in these diseases. Suffice it to say that accidental injuries may incidentally induce a lobar pneumonia or broncho-pneumonia though these injuries may be remote from the thorax just as pneumonia may follow surgical operations. Both of these processes simply lower the vitality and resistance of the individual and allow the germs to invade the lungs.

HEART.—The heart should be studied following every industrial injury. Except the eye, it is more often defective than any other organ of the body, there being but few perfect hearts. A valvular leak is apt to be attributed to a litigated injury unless it is detected in advance and notation made. Diseases of the heart do not follow injuries remote from this organ unless there are haemic infections or sepsis associated with the injury. If the patient suffers from a bacteremia or septicemia following the injury, the heart valves or even the heart structure itself may be permanently damaged. It might be well here to call attention to acute injuries of the heart from strain by placing this

organ in any way under very high tension. It is practically impossible for a normal heart to be affected in this way. If the heart suffers from acute dilation, the sudden giving way of valves or is otherwise acutely weakened, the musculature or valves or both were previously diseased. In other words the injury could be considered only a secondary and not a primary cause.

CIRCULATORY SYSTEM.—The circulatory system plays an important role in diseases following industrial injuries. One upon first examination should look for varicose veins, observe the physical condition of the arteries and take the blood pressure. High blood pressure is not infrequently made a part of the basis for claim. Hypertension is caused from faulty metabolism, disease of the kidneys and hardening of the arteries, or a combination of these, none of which come directly from traumatism.

There is only one way in which hypertension could be easily associated with accidental injuries and that is from mental worry and anxiety brought about from the uncertainty of whether or not a person will receive the amount of money that his distorted mind has prompted him to believe he ought to have. The one against whom the claim is being made, however, should not be held responsible for mental perturbation brought about in such a way.

It often occurs that blood clots, tissue, fat, air and other substances pass into the veins from injuries and float into the lungs producing infarcts. These emboli may contain bacteria and produce abscesses in the lungs or pneumonia. Such processes may cause long periods of illness and often set up disturbances in the lungs that are incurable. A small, non-infectious infarct will simply produce what appears to be a cold, slight temperature and short illness, the patient recovering promptly. Large emboli may stop up large vessels producing infarcts that may get infection from the respiratory tract and cause a pneumonia just as severe as though the bacteria had come from the injured part. Usually, however, it is the infected emboli carrying bacteria from the injured part to the lung that produce malignant abscesses and sepsis.

BONY STRUCTURES AND JOINTS.—Osteomyelitis and arthritis are made the basis

of claims following injury. It is only remotely possible that bony structures become inflamed from an injury except that the bone be exposed to bacteria, and even in this instance the inflammatory process is localized and osteomyelitis does not result. Osteomyelitis is caused from bacteria getting into the circulating blood through some focus, as teeth, uterus, tonsils, respiratory tract, alimentary tract, etc. Clumps of these organisms are carried by the blood into the constricted and non-resilient arterioles of the bones, lodging there and setting up an inflammatory process. The germs producing this malady usually are staphylococci or tubercle bacilli though the typhoid bacillus has been guilty of such offense. These disturbances may have existed prior to the injury or may have followed the injury without the latter having had any bearing upon the disease process. The injury certainly could not be charged with this offense unless it had caused bacteremia or septicemia. The same may be said of joint as of bone. Unless the traumatism reaches into the serous sac carrying bacteria into it no joint infection would be produced. Infection must either be carried directly to the serous sac by traumatism or there must be a bacteremia, the germs reaching the joint through the blood stream.

The mythical railroad spine is always with us. We cannot feel, see or hear a pain. Where uncertainty exists we can only wait patiently and see whether or not the jury believes this pain exists and is the result of the injury.

KIDNEYS.—Injury will not produce Bright's Disease—that chronic disease of the kidneys with which we are all so familiar and which is not due to an infectious process. This disease is degenerative in its nature and not a true inflammation. The only way accident could injure the kidneys would be by direct traumatism or by producing a bacteremia or septicemia. These latter processes may cause infarcts to lodge in the kidneys severe enough to cause death or they might produce suppuration and abscesses involving both kidneys and pelvis. There might be only microscopic infarcts causing slight and transitory inflammation. No lesion of the kidneys should be attributable indirectly to accidental injuries except those of infectious origin.

ABDOMINAL VISCERA.—Injuries of the abdomen will not produce peritonitis, appendicitis or other inflammatory processes unless there are contusions through which bacteria are carried into this cavity or unless the injury is to such an extent that the gut is torn so that infectious material may enter the peritoneal cavity through this viscus. The same could be said of the gall bladder. Cholecystitis can be produced only by infection entering the bladder through the duct or through the circulatory system.

Considering diseases following injuries one must always ask oneself the questions. Was the injury of such a nature as to allow bacteria to enter the diseased organs? Could the organ have received these germs from a bacteremia or septicemia resulting from the injury? Is this disease on account of the injury or only associated independently with the injury.

A RATIONAL TREATMENT OF SPRAINS

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A simple sprain is usually a combination of (1) torn or overstretched ligaments, (2) effusion of blood and serum, and (3) an associated traumatic arthritis of the joint. In order to treat a sprain rationally all three of these conditions must receive attention. It is the neglect of one or more of these factors which results in the chronic sprains which are so common.

First, the torn structures should be definitely located by a history of the direction of the straining force and by gentle palpation. The torn structures are more acutely sensitive than any other part of the joint. An endeavor is then made to approximate the torn ligaments as nearly as possible in order to secure their prompt healing, and holding them in this position to avoid further strain. This is usually accomplished by strapping the joint in the early stages and, in cases of the lower extremity, by altering the heel of the shoe to prevent weight bearing causing further strain in the later stages of repair.

To treat the effusion and hasten recovery, the circulation should be encouraged by the application of heat in the form of packs, douches, or baking. A compression bandage, consisting of a layer of cotton about one inch thick over which a smooth snug bandage is applied helps to limit the effusion and protect the joint. Massage may be used in the form of very light stroking toward the heart, even very early after a sprain, but deep massage should be reserved for the very late stage of repair.

Active and passive motions, which can be accomplished without pain, are of great assistance in improving the circulation and preventing muscle atrophy and should be encouraged. After the acute swelling has subsided the joint should be strapped with adhesive straps so applied as to approximate the torn ligaments and to avoid further strain. Too early or too active massage, hydro-therapy, or motion may delay recovery but worse still is too rigid or too prolonged fixation. For this reason a plaster cast is to be condemned in the treatment of sprains; it promotes weakness and atrophy in the muscles, interferes with the circulation, and causes stiffness in the joints. A cast is not only harmful in itself, but it prevents one from carrying out the rational treatment.

Let us consider for example a badly sprained ankle. First we ascertain from the patient whether the ankle was turned inward or outward as this will indicate which ligaments have sustained the strain. Then we gently palpate to determine by the acute point of tenderness where the torn structures are located. Usually the patient has already used hot or cold applications as this is the usual household remedy. A little gentle stroking massage from the toes upward will often relieve some of the pain. A pressure bandage is then applied with the foot turned inward if the internal lateral ligament is torn, and outward if the external ligament is torn. The patient should be in bed with the foot elevated upon a pillow. As soon as the acute swelling and pain has subsided the pressure bandage is omitted, light massage given and the foot strapped, either in inversion or in eversion, with $\frac{1}{2}$ to $\frac{3}{4}$ inch strips of adhesive. He is encouraged to move the toes, and the ankle as

much as possible, but not in the direction which will put any strain on the torn structures. As soon as he can bear weight on the foot without pain, his shoe should be altered by putting a wedged heel on it; the thick side of the wedge should be $\frac{1}{4}$ to $\frac{3}{8}$ inches higher on the inner side if the internal ligament is torn, and on the outer side if the external ligaments are torn. Then he should be encouraged to walk. This hastens recovery in that it improves the circulation and hastens the development of the muscles back to their normal condition. A cane or crutch is usually used for a time but should be discarded as soon as the condition permits. Massage, hydro-therapy and special exercises will hasten recovery if properly used, especially are they of advantage in cases where recovery is slow or the patient is afraid to use the leg.

In cases of sprain of the knee joint, the compression bandage and rest are usually continued for a longer time than for ankle sprain. As the internal ligaments are usually involved a wedge heel $\frac{3}{8}$ inch higher on the inside is used. Fluid in the joint or what is commonly called "water on the knee" is not a contra indication to weight bearing. A tight compression bandage is applied and the patient is allowed to get up using crutches. If the amount of fluid in the joint increases, it is an indication that more rest is required, but if the fluid diminishes, the compression bandage is reapplied and use continued. To hasten recovery of a sprained knee it is most important to develop the muscle power in the quadriceps, especially the vastus internus. In many cases this muscle undergoes marked atrophy. Special exercises and possibly electrical stimulation are required to bring it back to its normal development. If it is not properly developed, the knee is "wobbly" and is subject to repeated strains and repeated accumulations of fluid in the joint.

X-ray: Every case diagnosed as a sprain should have a radiogram made for several reasons. Fracture or dislocation of the small carpal bones may be overlooked in sprains of the wrist. The same is true of the tarsal bones; linear fracture of the metatarsal bones is often overlooked. Quite frequently an impacted fracture of the neck of the femur in the aged is called a sprain of the hip. Impacted fractures

of the upper end of the humerus are sometimes called sprained shoulders. In persons over sixty years of age the bones are brittle and the ligaments are tough, so a fracture occurs more readily than a sprain. Even after slight falls on the hip or shoulder in an elderly person, if pain and disability results, it is a good rule to always suspect fracture and only make a diagnosis of sprain after a fracture has been ruled out by a good radiogram. The x-ray is also a great protection in case of damage suits; its omission is often hard to explain to a jury. It is of value in compensation cases. It is also of great help in cases which, following a trauma, develop some complication, such as tuberculosis or sarcoma of the bone.

A REVIEW OF ONE HUNDRED CASES OF CONGENITAL LUES*

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The hundred cases of congenital syphilis to be presented are concerned entirely with colored patients, and have been arbitrarily divided into three groups according to age:

	Male	Female
Group 1 Birth to three months	17	12
Group 2 Three months to 2 years	15	11
Group 3 Two to twelve years	25	20
	57	43

Due to the fact that patients born in the hospital are referred to us in the clinic for further study, we were able to see more cases during the first three months of life than are usually seen by the average practitioner in private practice. It is interesting to study the chief complaint given by the informant. In the first group eleven patients came in complaining of conditions that would immediately lead us to make a diagnosis of congenital lues. The most common complaints were: peeling of the palms, of the hands, and soles of feet, snuffles, and the usual eruptions of primary syphilis. Five patients came in with the report of a strongly positive cord Wassermann and were immediately

*From the syphilitic clinic of the pediatric department of the Emory University Medical Department and the pediatric wards of the Grady Hospital (colored).

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given treatment before any objective symptoms of congenital lues could be demonstrated. However, a Wassermann on their blood also proved to be strongly positive. The following is a list, in tabulated form, of the chief complaints of the first group:

Group 1**Number of Cases**

Bloody stools	1
Peeling of palms of hands and soles of feet	2
Snuffles	4
Discharges from nose and ear	2
Number of Cases	
Family history for syphilis with positive Wassermann	11
Malnutrition	5
Cord Wassermann positive	5
Bone affections	4
Eruptions	2
Pseudo-paralysis	5
Miscellaneous	All others

Only five patients came in with a positive cord Wassermann before any actual symptoms could be demonstrated subjectively or objectively. Many, however, who were told to come to the clinic on account of having a positive blood Wassermann, failed to show up until gastro-intestinal or the common luetic symptoms of childhood developed. One mother complained to us that her child, one month of age, had been suffering from piles for two weeks, and had been treated on the outside by a physician who had advised immediate operation. The condition about the anus proved to be a typical case of condylomata.

The family history was very difficult to obtain, as we dealt with the poorest class of mothers of the colored race. The father's history was never to be obtained so far as a luetic infection was concerned. In only one case, was it definitely proven, that both the father and mother had a positive Wassermann and were treated for lues. Eleven mothers gave definite history of luetic infections, and their blood was strongly positive. A history of miscarriages was obtained in eight cases. Six mothers were primiparae. Their children showed no signs at birth, but developed luetic symptoms during the first three months of life.

On examination this group showed numerous manifestations of lues. The most common were as follows:

Skin	Peeling of palms, of hands and soles of feet.
	Macular rash
	Annular rash
	Excoriation about buttocks
	Condylomata
	Jaundice

Glands—Most of the cases showed some glandular enlargement, but very few presented a general adenopathy.

Bones and joints	Syphilitic dactylitis
	Pseudo-paralysis

Vascular system—None except one case of severe hemorrhage.

Naso-pharynx mouth	Geographical tongue
	Snuffles
	Purulent discharge from the nose, usually from one nostril

Gastro-intestinal	Malnutrition
	Inability to digest food

Spleen and liver—Enlarged only in very few cases.

Hernia and hydrocele—Only in two cases.

The Wassermann will be discussed collectively for all three groups at the conclusion.

Group 2

In this group we include children from three months to two years of age. As we attempt to make a diagnosis on these patients, we occasionally notice the different character of complaints and some new symptoms and physical signs. Some of these patients were confined to the hospital where a routine Wassermann was required. The chief complaints of these patients were as follows:

Number of Cases

Edema	2
Mother's blood strongly positive	3
Positive Wassermann in other children in the family	1
Malnutrition	3
Bleeding from nose	1
Eruptions	1
Burns	1
Peelings of palms of hands and soles of feet	1

Condylomata	2
Inability to walk	1
Adenitis	1
Ophthalmia	1
Delayed dentition	1
Purulent discharge from the nose	1
Miscellaneous	All others

The past history of these patients was not of great help to us in making a final diagnosis as most of these cases were not previously seen by physicians, and information which we could gather from our informants was very limited. Only four cases gave a history of peeling of the palms of the hands and soles of the feet, and only three of them having had snuffles. Three mothers gave a history of a positive blood Wassermann, while from two patients we were able to obtain a history of positive luetic infection of the father.

Examination of these patients revealed the following signs:

	Number of Cases
Skin	
Typical old man facies	2
Pigmented scars	2
Condylomata	4
Impetigo syphilitica	1
Wrinkled feet and hands	1
Mucous patches	4
Glands	
{ General adenopathy	7
{ Others showed enlargement	
in different locations	
Bones and Joints	
{ Pseudo-paralysis	4
{ Syphilitic osteitis	2
{ Marked tenderness of	
tibia	1
{ Rickets	5
Vascular system—Negative	
Spleen—Enlargement	2
Gastro-intestinal—Malnutrition	4
Hernia—Umbilical	3
Nervous system—Convulsions	1
General development—Poor in most of the cases	

These patients presented typical pictures of malnutrition; poor development; numerous cases of enlarged glands and presence of rickets. Most of the eruptions were of the secondary type. A negative Wassermann was present in

one case where an absolute diagnosis of impetigo syphilitica was made. Generally speaking these patients showed effects of a chronic infection, but the difference was not as marked as may be expected in the next group.

Group 3

In this group we find many cases still bordering on the line of the preceding group. However, as the patients grow older, we begin to notice a multitude of new manifestations, again proving to us that syphilis will and does affect every part of the human body.

The following are the chief complaints in this group:

	Number of Cases
Purulent discharge from the nose	2
Piles	2
Inability to see	11
Eruptions	4
Sore back and sore rectum	2
Cataract	1
Mouth breather	1
Gastro-intestinal	2
Weakness and paralysis of extremities	3
Enlargement of joints	2
Discharge from vagina	2
Kernels	3
Headaches	1
Eneuresis and nervous	2
Discharge from the eyes	2
Rheumatism	1
Convulsions	1
Jaundice	1

Thus we see that the complaints are very numerous. Most of the patients did not at first give us a clue as to the diagnosis of lues. The past history was very indefinite. In two cases the history of peeling of the palms of the hands and soles of the feet was obtained, in five cases there was a history of snuffles, in one case there was a history of dentition at the age of three months.

The following are the numerous physical signs observed in these cases:

	Number of Cases
Malnutrition	4
Nose	
{ Saddle nose	2
{ Erosion of septum	1

Eruptions	{	Condylomata	4
		Old syphilitic scars	1
		Crusted lesions	1
		Mucous patches on cheeks	1
Oropharynx	{	Tonsils-mucous patches	1
		Tongue-mucous patches	
		Syphilitic ulcers of the posterior pharynx	1
The eye	{	Ulcer of the cornea	1
		Keratitis	9
Glands—General adenopathy			13
Vaginitis			2
Vascular system—Heart—Systolic murmur			1
Spleen-liver			1
Bones and Joints	{	Rickets	2
		Charcot's Joint	1
		Syphilitic hydroarthrosis	1
		Osteitis	1
Nervous system	{	Hemiplegia	1
		Epilepsy	1
		Facial paralysis of low extremities	1

As can be seen from these lists of physical signs syphilis in children affects nearly every part of the body. There does not, however, seem to be a group of symptoms and signs that can be found in each individual case. The patients in this group showed no special complications.

Of interest in this group are the following cases:

Case 1—Mother's Wassermann four plus; boy eight years of age; marked loss of weight; marked jaundice and anaemia; Wassermann four plus; on examination liver enlarged; lower border felt below brim of pelvis. Diagnosis: amyloid syphilitic liver.

Case 2—Boy twelve years of age; injury to elbow; swelling with fluid and displacement of bones; no pain; no limitation of motion; Wassermann negative; X-ray diagnosis—Charcot's joint.

Case 3—Injury to head; X-ray negative; in few days facial paralysis; flaccid paralysis of

one upper and both lower extremities; Blood Wassermann negative; spinal four plus. Patient died. Autopsy showed marked chronic leptomeningitis, no hemorrhage.

History as to Miscarriages and Still Births

Out of one hundred cases twenty mothers gave histories as to miscarriages. This is much lower than our Grady Hospital records. One mother reported nine still births, the tenth child was born alive and showed all symptoms of congenital syphilis.

The Wassermann Test

	Patient		Mother		Cord		Spinal Fluid	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
Group 1	24	0	11	2	4	1	1	15
Group 2	18	2	4	1	0	0	0	5
Group 3	42	2	3	3	0	0	3	4

Some patients gave positive blood and spinal fluid. Two cases had a negative blood and positive spinal fluid. Some patients were treated before any signs appeared, because we were able to obtain a positive Wassermann on the mother's blood and on the child's cord. A positive Wassermann is present in most of the cases of congenital lues.

Summary: Group 1—Showed marked skin manifestations and involvement of joints.

Group 2—Showed skin manifestation, involvements of joints and bones, and occasional eye signs.

Group 3—Showed old lesions of early congenital syphilis; involvement of eyes, bones, nasal cavities, and the nervous system.

Conclusion: 1. The chief organs affected by the syphilitic infections in children are as follows: skin, mucous membranes, eyes, nose, bones and joints, and the gastro-intestinal system. All other organs seem to be but little affected in childhood.

2. Bartholomew states that thirty-seven per cent of the new born of the colored race gave a positive cord Wassermann. We should therefore urge the profession to make a Wassermann on the mother and on the cord of the child obligatory.

3. A thorough knowledge of congenital syphilis is necessary, for many times we are not able to obtain a positive blood Wassermann.

4. The Hutchinsonian Triad is very rarely seen now in congenital syphilis.

5. Teeth play an important part in the diagnosis, as there are numerous manifestations other than the Hutchinsonian teeth in the oral cavity. The dental profession should be educated in the diagnosis of these teeth conditions, so as to aid the medical profession in the early detection of this wide-spread disease.

DISCUSSION ON THE PAPER OF DR. JOSEPH YAMPOLSKY

DR. FRED G. HODGSON, *Atlanta*.—We are to be congratulated upon having a report on the work of Dr. Yampolsky in the colored clinic in Atlanta. He has taken more interest in this work than any one else. He has demonstrated a lot of cases of syphilis which practitioners were not calling syphilis before. I have seen a good many cases with Dr. Yampolsky with bone and joint manifestations. You can have any sort of bone or joint lesion due to syphilis. For instance, we saw one case with double hydrops of the knee. Both knees were very much swollen and contained fluid. There was no pain, but very marked swelling. Considerable fluid was found in the joints in this case. That is one syphilitic manifestation. We have had many cases of arthritis, and cases we could not tell from chronic osteomyelitis; some resembled tuberculosis of the joints, and we have had cases of simple osteitis without suppuration.

In another class belonged the so-called cases of neuro-syphilis. We do not see very often Charcot's joints in children, but we have recently had two typical cases. The joints were completely disorganized. The elbow joint moved back and forth and sidewise, with complete destruction of the joint. There was no pain, no evidence of inflammation of any kind but a typical Charcot joint.

As Dr. Yampolsky has pointed out, the Wassermann test is very valuable, and when carefully done we have found a large percentage of positives, but if the Wassermann is negative we do not consider a child has not syphilis and we try out the therapeutic test.

The main point of interest is the various manifestations of syphilis seen in bones and joints.

DR. GEORGE L. ECHOLS, *Milledgeville*.—I wish to thank Dr. Yampolsky for the paper he has presented on inherited lues. At Milledgeville I have attempted to work along this line of examining the children of committed neuro-syphilitic patients. The idea is to examine these children, and refer them back to their family physician or to a Syphilitic Clinic for treatment. The following is an illustration of a case we have had recently.

A white female patient was committed with a definite case of paresis. She gave a history as follows: After the birth of her first child, she contracted syphilis while nursing same. This was followed by two abortions, one abnormal child dying in late infancy, and another child dying at about nine from

congenital lues involving the nervous system. The first child while on a visit to her mother at the institution was examined, and referred to the Associated Charities of Atlanta where she was induced to attend a clinic and receive treatment for definite neurosyphilis. In this case an asylum commitment is perhaps being prevented. We should get into the habit of examining the children of our syphilitic patients, and get these children under treatment when treatment is indicated.

DR. W. A. MULHERIN, *Augusta*.—Dr. Yampolsky has well analyzed the symptoms and signs in a series of cases, and has presented them to us in a very clear manner. Congenital syphilis, while easy of diagnosis in some cases, is quite difficult in other instances. The ease or difficulty of diagnosis will depend in a great measure upon how many classical symptoms and signs exist, such as chronic rhinitis, skin eruptions, labial fissures, mucous patches in the mouth, around the anus and genitalia, and scaling of the palms and of the soles of the feet. Enlargement of spleen, in my experience, has been a pretty constant sign, and with cachexia later following, the diagnosis is easy or difficult just in proportion to the extent that these manifestation are present.

There is one thing I did not hear Dr. Yampolsky mention, although he may have done so, namely, the scrapings from the external lesions will frequently enable you to make a positive diagnosis.

Holt recently reported 29 cases of congenital syphilis, and of this number 22 gave skin lesions. In 21 cases spirochetes were found. This procedure I consider very valuable in making or confirming a diagnosis.

While Dr. Yampolsky's paper did not deal particularly with treatment, let me offer one valuable suggestion regarding it. The proper time to treat congenital syphilis is not after the baby is born, but to begin treatment as close to the time of conception as it is possible. This method is the only successful way of treating it. It is true our clinical results from treatment are apparently very brilliant, but do not let us forget that it is temporary, and not curing the child. The time to treat is before the child is born. Prenatal clinics should be encouraged, and the establishment of them should be general. By such procedure disgraceful infant mortality, due to syphilis, will be successfully handled. Poor pregnant mothers, who cannot afford the best of medical attention, should have a Wassermann test made upon them in order to insure the healthfulness, and often times the life, of their babies.

I believe the time is not far-distant when mothers will be sufficiently educated to voluntarily ask for a Wassermann test to be made on their blood when they have become pregnant. Their action will not be influenced so much by any suspicions of husband, but more as a safeguard against preceding ancestry's errors, and a desire to insure to their babies, life, health and happiness.

DR. J. L. CAMPBELL, *Atlanta*.—I am glad to

have heard the doctor's paper because we have a fine opportunity of studying syphilis at the Grady Clinic. Statistics gathered by Drs. Bartholomew and McCord in the maternity department, where from 1200 to 1600 babies are born annually, show that about one-third of all the colored population of Atlanta (50,000 individuals) have syphilis.

Dr. Yampolsky has had the opportunity of seeing all of the manifestations of this disease and he has discussed them well, however, he did not mention osteomyelitis, which we frequently see. Before the days of the Wassermann we were accustomed to depend on the thickening of the anterior border of the tibia a mild osteomyelitis as a valuable diagnosis sign.

Syphilis is a great menace to both black and white. The white population should take more interest in the work that is being done at Grady Clinic as a means of self protection, for our servants are frequently infected and may be a means of infecting our children.

I am not sure that Hutchinson teeth are as common in colored as they are in white syphilitic children.

There are so many ways in which syphilis manifests itself that we have to be constantly suspecting it and no one can afford to pass lightly over a paper dealing with the subject.

DR. HORACE G. HUEY, Homerville.—This is one of the most interesting subjects that I have heard brought before this meeting. I had the pleasure of being with Dr. Keidel and Dr. Robinson of the Johns Hopkins last summer for a few weeks, and I am going to tell you the way they treat syphilis. I do not know whether you do that with children or not. They average about 806 injections a day. When they find a grown person with syphilis they have a social service worker go out and get the children in, otherwise it would be years or months before they fall into the hands of those who are doing syphilitic work among children. When they find a grown person with syphilis, either the mother or father, they get the social service workers to go out and bring in the children and make Wassermann tests. They find in the primary stage of syphilis that six doses of 606 will cure. In the second stage it is practically never cured. In the third stage they frankly admit that no case is cured. These patients are practically never cured after the second stage, although they may be able to afford relief.

They are doing a great work there because each patient gets a dose of 606. A Wassermann test is made previous to the injection, and that is the way they check up.

The best time to treat congenital syphilis is six years before conception. That is the time they figure they can get results with congenital syphilis.

DR. L. F. LANIER, Rockyford.—A few months ago a colored woman came to me with what appeared to be a chancre on the index finger. She wanted me

to cut the finger off. I said to her, "Auntie, let's examine your blood first, let's not be in too big a hurry to cut your finger off". I took a blood Wassermann, and found it a four plus. She got this chancre from washing the clothes of her granddaughter who had a nasty case of Lues. Incidentally an old white man living on the same plantation, whose morals were said to be above reproach, developed a penile chancre, a four plus Wassermann. His claim was he caught it from city laboratory. Under Neosalvarsan and one-quarter grain Protoiodide in six months he showed negative Wassermann. His wife developed rheumatism of shoulder—no other symptoms—blood Wassermann weekly positive, disappeared under mercury.

DR. A. G. FORT, Atlanta.—I wish to compliment Dr. Yampolsky on his careful and concise presentation of this most important subject. We notice that in the group of cases he has had during several years there were quite a number of cases of keratitis. His observation coincides with ours in the ophthalmological department of the colored section at the Grady Hospital. If these children were treated early, we would see much smaller number of cases of keratitis; and we believe if they were treated early we would see many less cases of chronic iritis in the old. The number of cases of chronic iritis in the old is astonishing to see. In fact, the disease is so insidious that it causes almost complete destruction of the individual's eye before we can get an actual diagnosis made, and the number of cases in negroes which come under our observation in the colored section of the Grady Hospital is really alarming.

DR. YAMPOLSKY (closing).—I want to say, that the Emory University Clinic is not doing this work from the standpoint of the syphilologist but from the standpoint of pediatrics. We have one pediatric clinic which deals with these cases.

I want you to carry away with you this thought, that syphilis is a disease which is to be found everywhere, and the number of cases of disease of this type found in the young and old is astonishing. Syphilis is a disease of civilization, and those having the disease go from one country to another to bring light to the new countries just as Columbus did when he presented light to the Indians who had syphilis, and that is, syphilization before civilization.

I did not want to go into the treatment of these cases because that is another phase of the subject. However, I want you to remember that if our missionaries can go into certain parts of the world to bring light and civilization, we must remember the words of our friend, Dr. Callum, and read a chapter in Genesis of the man with a mouthful of mucous patches. Unless we treat these patients properly by learning to diagnosis their cases beforehand, we cannot accomplish what we want.

I wish it were obligatory in the State of Georgia to have a Wassermann made of every woman and

every child just the same as it is obligatory to instill silver nitrate into the eyes of children.

Regarding the teeth symptoms, a great many practitioners believe that you can make a diagnosis of syphilis by finding Hutchinson's teeth in children, but I want to point out that Hutchinson's teeth are rarely found now.

Some of you may remember of a case that was written up in the Atlanta newspapers of a wonderful baby that had a couple of central incisors that presented the appearance of gold teeth, and it was said to be marvelous that a baby should be born with gold teeth. The fact of the matter was that the child had brown enamel full of spirochetes. First, you will find a typical picture of the cusps of the teeth, and if you have cusps that are thick enough, you will find that this portion of the teeth will be white, while the rest will have brown enamel. You will see a sweet young lady coming into your office with a child to be examined for some reason. If you look at the woman you will find that she has Hutchinson teeth, but this woman by constant chewing has worn them down and the central incisors are much smaller than the rest of the teeth. You can make a diagnosis from what the little patient shows. If you can get the child to smile it will enable you to make a diagnosis.

Another point: syphilitic Hutchinson teeth can be diagnosed before the teeth erupt. The central incisors are the secondary teeth, and in regard to Hutchinson teeth, if you will take an x-ray picture you will find unerupted Hutchinson teeth in a child two years old, proving that the necks of the central incisors are formed in utero, together with the six year molars, and are diagnostic in many of these patients. I want you to forget the Hutchinson triad; it hardly exists except as syphilitic keratitis. Get a correct history of the case and you can make a diagnosis by questioning the mother sufficiently to get an idea of her past history and family history three or four generations before that, and you will be surprised how frequently you can make an accurate diagnosis of syphilis without examination of the patient.

INDUSTRIAL MEDICINE AND SURGERY

L. G. Hardman, M.D.,*

Commerce, Ga.

The subject of the paper that I present to you today is not altogether a new one but has just recently come to be recognized as a necessary department in medicine, looking to the welfare of the industrial worker as well as the

manufacturer's interest; and the title of this paper is, **INDUSTRIAL MEDICINE AND SURGERY.**

We have come to divide medicine and surgery into many departments, looking to the service that can be rendered the individual and owners of the many varieties of endeavors that human energy has devised.

The industrial workers where they were gathered in groups had medical service but it was only rendered in the way that the doctor did most of his private work, and the supply of medical service in the early stage of mills and manufacturing was based upon the philanthropic ideas of the mills and owners but the plan of handling the medical services for the mill operatives has very much changed and improved; so much so, that the mills as a rule, arrange to secure the best physicians of the community to render medical aid and services to the mill operatives, and the best sanitary conditions surrounding their property.

History of Organization

Conditions in the factories and the mill operatives have so changed that the type of physician and the type of work has also changed, and the old "contract style" has practically been abandoned and the mill operatives and surroundings have the very best services. On account of the changes in mill conditions and manufacturing generally, there sprung a desire for an organization which was put in form in April, 1914, by the Conference Board of Physicians in Industry, and it is now in its 9th year, and has held 36 meetings. So far as I know, this was the first organization. In 1919, the Board was re-organized and the membership put on a contributing basis; and the Secretary was given the necessary time to promote its work, and the Secretary was authorized on medical problems in industry with the National Industrial Conference Board, and the meetings are now held five times a year.

Purpose of Organization

The purpose of the organization was to standardize some uniform method of treating accidents and the illness of the individual under their care and supervision.

The organization of the Conference Board of

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Physicians in Industry was organized in 1917, along similar lines, and other organizations in the different states have been organized. This organization works in harmony with the American Medical Association, and these bodies have at times, had their meetings at the same time and place.

We recognize that the railroad enterprises have distinct organizations to study and advise the railroad authorities along the lines for the best interest of their operators, and for their organization, and similar organizations should be had for the industrial and manufacturing workers in our state.

Definition and Scope of Work

The definition as given of this organization is as follows:

"The physician in industry is one who applies the principles of modern medicine and surgery to the industrial worker, sick or well, supplementing the remedial agencies by the sound application of hygiene, sanitation and accident prevention; and who, in addition, has adequate and co-operative appreciation of the social, economic and administrative problems and responsibilities of industry in its relation to society."

The scope of the work is to introduce into industrial establishments the most effective measures for the treatment of injuries or ailments of employees; for promoting sanitary conditions in the workshop and for prevention of industrial diseases. And further, to suggest improvements in construction of living apartments and surroundings that will secure for the operatives the best health and the strongest physical character that they may be of service to themselves, and to promote the interest of the industry that he has selected for his life's pursuit; in this way, both the operatives, physician and the company, are all mutually benefitted.

Georgia is fast coming to be one of the industrial manufacturing and factory states, and no greater service could be rendered the state, perhaps, than an organization of industrial medicine and surgery by the Georgia Medical Association, thereby promoting, aiding and maintaining the best health condition and the greatest progress in the factory industry of our state. Georgia has the natural resources in both cli-

mate and labor, equal, if not superior, to any state in the union, and the physicians of Georgia, in this time of unrest and trials on the part of our people, could greatly aid the laborers as well as the factory owners in this line of work. No citizen of the state is in a position to contribute more to its development along the industrial lines than is the doctor; and there is no citizen who is more willing, nor one who has been more philanthropic in his work than has the doctor, and there is no citizen in a better position to contribute both to the individual and to advise the investors in the construction of health apartments and houses for the mills than is the physician, and I suggest that the Georgia Medical Association create this organization in connection with its present organization, to be known as the Physicians Industrial Medicine and Surgery Division, and that this organization after its completion, join like organizations in the United States, all of which is to co-operate with the state organization and the American Medical Association.

Georgia has invested in the textile industry \$63,464,730.00 and the total number of spindles 27,753,498, and 42,768 operatives. Then, it must be apparent to every one that with the amount invested in Georgia textile industry and the number of citizens employed by these industries, that they should have the very best service that could be rendered by Medical men. A great deal can be done by the physician to stimulate further investments and progress along this line in Georgia.

DISCUSSION ON THE PAPER OF DR. L. G.

HARDMAN

DR. THEODORE TOEPEL, Atlanta.—Dr. Hardman's paper is a very timely one, and his suggestion that the Medical Association of Georgia endorse this movement and become affiliated with similar movements should be adopted. However, a motion like that should be referred to the House of Delegates. We have had these industrial commissions. We have one now under the Workmen's Compensation Act. It originated in the heads of laymen. I think it is timely and wise for us to initiate a movement of this kind in our Association. Let us take the step in time. If it comes from us we will have the say so in the formation of laws of that kind, and we will be the promoters of a new scheme which is a worthy one. The Army has taught us this lesson: that

greater work falls upon us physicians by saving the working people. It is a greater asset to the country, and therefore, Mr. President, I move that this body endorse Dr. Hardman's suggestion and recommend it to the House of Delegates for consideration. Seconded.

DR. THOMAS J. McARTHUR, Cordele.—I wish to say a few words on this paper. I would suggest to Dr. Hardman that he change the name that appears twice in his paper of Georgia Medical Society to the Medical Association of Georgia. So many doctors in speaking of this organization do not call it by its right name. The Medical Association of Georgia is its right title. I am sure that is what Dr. Hardman meant, and I would suggest that he make that change.

I most heartily approve of the suggestion that this Association do something in the way of not only improving the conditions of the health and sanitation of our state which is needed, but we know there is much that should be done along these lines. The most important one is to correct the false impression that has gone abroad that we are so bad off in that respect. As was said by the gentleman who welcomed this Association to this city this morning, the southland, particularly in Georgia, has been given a black eye, and this section of the country has been pictured to industries as a malarial section. We all know that the industries, particularly the cotton mills north and northeast, are looking to the south; they cannot compete with the southern climate and with the labor conditions that exist in the south with the conditions that obtain in Massachusetts, New Hampshire, and similar states, and people are coming south every year, they are coming fast, and many of the large industrial institutions are looking toward the south. It has been mentioned how people are going to North Carolina. Georgia is just as valuable and suitable as a location for them as is North Carolina. But there are some things that need to be changed. Our reputation for health conditions needs to be established.

I do not know that I understand perfectly yet what Dr. Hardman's suggestion is in the way of a commission, but I do most heartily approve of this organization doing something along that line.

DR. THOMAS CHASON, Donaldsonville.—I wish to second Dr. Toepel's motion that we recommend to the House of Delegates the creation of this department of industrial medicine and surgery as a branch of this Association. In doing that, I want to say that Georgia's reputation is suffering away from home, in that our leading industrialists and those that know better are becoming anxious because we are not increasing our industries. We are not getting new industries. We fell off in cotton production last year below that of Alabama. It is time to lend our influence and knowledge to the economic restoration of Georgia, and not only that, but I understand this department will lend its influence to that and to all public health measures, civic and

social, to health conditions and sanitary conditions. It cannot be done just for industries alone, it must be general, and with this will come the industrial nurse, the industrial hospital as they have it in the north. We have now industrial surgeons, and I do not think there can be a greater advertisement for the state than that it should go out we have organized this commission. It shows that we as a body are lending our influence toward better economic conditions from the standpoint of health and civics.

DR. A. A. SMITH, Hawkinsville.—I rise to endorse everything that Dr. Hardman has said and I especially endorse Dr. McArthur and Dr. Chason's remarks in support of the commission advanced by Dr. Hardman in his paper. I think it a laudable desire to serve the best interests of the laborer as well as the heads of the industrial interests and I feel it is the duty of the Medical Association of Georgia to take hold of it with all the power and energy it can command. I feel assured that the purpose of the author is for the benefiting of laborers and promoters of industry in a general way. The laboring classes throughout the State in industrial departments generally are greatly handicapped for the reason that they cannot get the medical attention that they need, and it is very much desired in the large manufacturing institutions, and also the medical attention which will give them that degree of usefulness as citizens and as workers that will promote the interest of the whole country. Therefore, I not only rise to endorse the remarks made by my friends Dr. McArthur and Dr. Chason but to say in addition all that can be said in commendation of Dr. Hardman's paper.

DR. B. H. WAGNON, Atlanta.—I am at a loss to know whether it is due to the Association with Dr. Hardman as a member, or whether it is due to the foresight of the Boards of Directors and Superintendents of the textile industries in our state, but in the city of Atlanta and in LaGrange I know especially the living conditions of those people have been improved more since 1914 than the living conditions of any other class of laborers. The Board of Directors and superintendents of the big cotton mills in Atlanta have made it their business to see that these people are properly housed. They are not putting them in shacks, but putting them in well constructed, well painted bungalows, with baths and toilets, and it is the business of a man or woman to inspect the premises of these places. They have also established community houses in which they put on picture shows and have established kindergartens for them. I do not know whether this commission of industrial medicine and surgery of the Medical Association of Georgia has had its influence in this matter or not, but the superintendents and the boards have seen where they get their best work from taking care of the laborers, and they are going ahead with it. They allow any doctor in the community to build up a practice, and when any surgical work is to be done

the surgeon is selected with as much care as anybody in our town for these people who work in the cotton mills. A few years ago these people were considered as poor white trash, but now their living conditions have been so improved that those people who come to town mix with the folks on the street, go into the stores, and are not ashamed to be seen there.

DR. THEODORE TOEPEL, ATLANTA: I move that this question be referred to the House of Delegates for action with our endorsement.

Seconded and carried.

DR. HARDMAN (closing): I do not wish to take up the time of the Association unnecessarily, but I do feel the importance of this measure, and I want to make this suggestion now in regard to the word industry. That does not include simply cotton mills or any other manufacturing plant, but it means all the industries of the state, every manufacturing industry whatever type it may be. There is a demand on the part of investors to know what conditions exist at a particular place where these industries can be carried on, whether it be a steel plant, a textile industry, or whatever it may be. They want to know where they are putting their money, and that is the reason I have presented this paper, because no man in Georgia is better qualified to give that information than the doctors of Georgia, and no man's testimony of the condition of the respective places will be more highly honored than that of the doctors.

In North Carolina the increase in the textile industries alone in one year has been 60 per cent. or 500,000. I am speaking now of the cotton industry in Georgia; it has been 42 in Georgia, and the people and doctors of Georgia are suffering on account of the statement of the conditions that have existed in different parts of Georgia as to health conditions and the health of the operators in the respective manufactures and producers of the State of Georgia. I believe no greater service can be done by the doctor in Georgia today than to help Georgia with her burdens and bring her back where she is entitled to be, one of the greatest manufacturing and industrial states in this Union, and that is the reason why I feel so anxious for Georgia.

I may say, that I rather hesitated in presenting this paper. I did it for the reason that we need it now; we may not need it so bad later on. I plead with you as doctors of Georgia in the interest of the laboring man, in the interest of the investor, in the interest of Georgians to create a department of some kind, whatever you please to call it, by which every line of industry can get first hand knowledge and know what they are doing when they put up a building for installing machinery or a building for keeping all operatives in.

DR. MCARTHUR: I would like to ask how that is going to work out?

The Southern Railway and Seaboard Railway Sys-

tem have been conducting investigations along this very line through Georgia as to health conditions, and when they came through there was no one to give them health statistics of the percentage of malaria, typhoid fever, and diseases of that kind. Will it be the province of your commission to obtain information which is dependable and acceptable to these people?

DR. HARDMAN: Absolutely. The doctor himself is the man that will secure the information and furnish it to those who are seeking the information and they will know it first hand. If the doctors of Georgia do not do it, somebody else will do it, and you know who will do it, and that is the Women's Federation Clubs who are determined to see that Georgia goes forward, and I for one as a physician favor the Women's Federation Clubs. I want to see the doctors of Georgia take a firm stand for the development of Georgia and move forward as no other organization can. (Applause.)

WHISKEY, WOOD ALCOHOL AND EYESIGHT*

Elton S. Osborne, M. D.

Savannah, Ga.

Blindness may lurk in a bottle of Hootch. Recently I have seen two cases nearly blind, the result of drinking whiskey containing wood alcohol; whether they will become totally blind only the future can determine.

Occasionally wood alcohol is assigned as a cause of blindness or of serious impairment of vision but in the vast majority of these cases the proper cause is not assigned. A person will have a rapid loss of vision, it does not occur to him that there is any connection between the loss of vision and the liquor he is drinking.

A patient recently appealed to me stating that he had waked one morning and could not even read the headlines of the newspaper, a slight paling of the optic discs caused me to suspect wood alcohol; I requested him to bring a specimen of the liquor he was drinking, he was indignant, said he drank only the finest whiskey with the revenue seal. He brought

*Read at the First District Medical Association, March 17, 1923, Metter, Ga.

some of it to me and it certainly contains a large proportion of wood alcohol.

Wood alcohol is a potent poison but curiously, all do not seem to have the same susceptibility; some can drink quantities without serious effect yet in numerous instances a single teaspoonful has been known to produce total and permanent blindness. As wood alcohol is cheap and can be refined so that it cannot be distinguished from grain alcohol except by chemical analysis, there is a temptation to use it.

A revenue seal over the cork does not mean much, it is a well known fact that these are being printed promiscuously, but even if the seal is authentic the bootlegger has devised a means to empty the contents of the bottle and refill without disturbing the cork. The bootlegger gets two long hypodermic needles of the stouter variety used in medicine for the lumbar puncture and by inserting them on opposite sides of the cork the contents of the bottle can be emptied and the bottle refilled and there will be no evidence left on the cork or seal that the bottle has ever been tampered with.

With the hypodermic or spinal puncture needle the bottle can be filled completely. The regular bottle of hootch is not quite full, when the bottle is shaken there is a splashing sound, a bootlegger walking through the passenger station with a suit-case full of wet goods in each hand, each bottle splashing merrily, is apt to attract considerable attention; by means of the hypodermic or spinal puncture needle the bottle can be filled completely and they lie quietly throughout the whole journey.

It is hard to say what the hootch is made out of these days, each bootlegger has his private receipt; one told me that he was making his out of spirits of niter, ether and potash and labeling the mixture gin. He said his neighborhood was very bad that formerly every Saturday night and Sunday the neighborhood was terrified by a continuous fusilade; but now of a Saturday after drinking some of his niter, ether and potash gin, not a sound is to be heard, not a human stirs, "All about is silent

and still, save the whispering zephyr, and murmuring rill."

Said Policeman Gallagher, at Broadway and Forty-Sixth: "New whiskey is the greatest ally the the police department has. We used to have to subdue the boisterous ones, but the new stuff subdues them automatically before they start getting boisterous."

Visual disturbances, preceded or accompanied by acute abdominal distress, should lead us to suspect wood alcohol poisoning. The symptoms of acute poisoning are disturbances of the stomach, abdominal pain. "General weakness, nausea, vomiting, headache, dizziness, dilated pupil, blindness. If recovery does not occur there is marked depression of the heart's action, sighing respiration cold sweats, delirium, unconsciousness, coma and death." A single teaspoonful has been known to produce blindness although all are not equally susceptible. A single wood alcohol rub may produce poisonous symptoms through absorption by the skin.

Disturbances of vision are also produced by fusel oil; freshly distilled or raw whisky always contains this poison; this is amyl alcohol produced by the action of a bacillus on starch. During the alcoholic fermentation of corn or potatoes this fusel oil or amyl alcohol is always formed and passes over with the distilled spirits. The fusel oil can be separated from the spirits by fractional distillation but how many moonshiners know anything about fractional distillation? How many are even going to take the trouble to double distill their liquor?

The symptoms of fusel oil poisoning are giddiness, diplopia, headache, coma, and a sub-normal temperature. Later rigidity followed by complete muscular relaxation, cyanosis and at times a peculiar fruit-like odor of the breath is noted. In drinking new whiskey you can never tell what you are putting into your stomach. If it is drunk in sufficient quantity to get the acute poisonous effect the diagnosis is easy, but it is the insidious cases of the moderate drinker that will baffle the diagnostician; this slow poison eventually resulting in the impairment of the eyes, the digestion, or the nervous system.

ANEURISMAL VARIX OF THE FEMORAL ARTERY AND VEIN FOLLOWING A GUNSHOT WOUND

Harris M. Branham, Brunswick, Georgia

W. B., aged twenty-four years, on the 12th of April, 1890, accidentally shot himself with a 32 calibre pistol. The ball entered the antero-internal aspect of the left thigh about 4½ inches below Poupart's ligament and ranged downwards, lodging under the integument of the postero-external surface of the limb, 6 inches above the knee.

Profuse hemorrhage occurred until checked by syncope, and it did not recur when reaction set in. Examination of the wound fifteen minutes after the accident, revealed nothing of note, other than an enfeebled circulation in the injured limb.

The wound was covered with an antiseptic dressing, and healed in a short time without suppuration. The temperature ranged between 99 and 101 with a slightly quickened pulse beat for two weeks, after which time both remained normal. Retention of urine occurred during the first twenty-four hours following the injury, and was relieved by catheterization.

Three days after the accident, a slight thrill could be felt over the wound, and a decided bruit heard upon auscultation. A diagnosis of traumatic aneurism of the superficial femoral was made by myself and several prominent members of the Georgia State Medical Association, which was in session here at that time.

An operation was decided upon, but for several reasons had to be postponed for a time. The thrill and bruit increased in intensity, and a slight swelling was revealed by palpation. The most mysterious phenomenon connected with the case, one which I have not been able to explain myself or to obtain a satisfactory reason for from others, was slowing of the heart beat, when compression of the common femoral was employed. This began to be noticeable after the wound had entirely healed. The patient was apparently well, with exception of the injured vessel, which necessitated his confinement to bed. This symptom became more marked until pressure of the artery above the wound caused the heart's beat to fall from 80

to 35 or 40 per minute, and so to remain until the pressure was relieved. Compression of the artery of the sound limb would produce no such effect. Examination of the heart showed it to be free from any valvular trouble. Attending the slowing of the heart beat was a slight dizziness and some dyspnoea.

Two months after the injury was inflicted, the patient was anesthetized and an incision made over the seat of trouble in the line of the artery. Upon careful dissection of the vessel, it was found that the artery and vein were adherent at the point where the thrill was most perceptible, and that the arterial blood was being pumped into the vein, as shown by the pulsation of that vessel below the wound, and an almost entire absence of pulsation in the distal portion of the artery. The vein was considerably distended opposite the opening, and upon pressing the artery above, appeared to be in danger of rupturing.

A silk ligature was passed around the artery above and below the varix, tied and cut short.

The wound was irrigated with a weak solution of bichloride, and closed with silk sutures, a bundle of prepared horsehair being used for drainage.

In two hours after the operation the circulation in the limb was better than it had been at any time subsequent to the injury. Considerable pain was experienced for a week or two, but the wound healed by first intention and the patient is now enabled by the use of a crutch to go where he wills.

I report this case because of its unique character, in that the varix was caused by the passage of the ball between the vein and the artery; and also to elicit some information as to the correct cause of the retarded heart action.

This is an exact copy of Dr. Branham's original article which appeared in the International Journal of Surgery, 1890, iii, 250.—Ed.

SOME UNUSUAL CASE REPORTS

C. K. Wall, M.D.,
Thomasville, Ga.

Since the advent of radium as a therapeutic agent in itself and as an aid to surgery, those of us who use it come upon some rather striking cases and are at times rather surprised with our results. A case in mind is one of an old lady with an epithelioma of the nose.

This patient, Mrs. W. D. B., white, age 72, referred to me by Dr. H. M. Moore of Thomasville, came in on Feb. 9th, 1923. At that time she presented the picture one sees in the accompanying cut. The history devoid of interest up to about a year ago. At that time she had a blackhead on the right side of the nose. This was squeezed by her daughter. Following this it seemed to inflame and stayed sore for several months. Then it got better and she was not bothered especially by it any more till November, 1922. At that time the spot began to grow and at Christmas time it had attained the size of a dime. She used several mild salves on it but none of the usual cancer pastes. She came to us two months later with the mass as shown.

Physical examination showed nothing other



than senility and the growth. This was about the size of an ordinary orange; it bled easily and was of a very disagreeable odor.

Her treatment consisted of buried needles in the mass till a total of 1500 milligram hours had been given. The position of the radium needles were changed several times during the application so as to radiate the whole mass evenly. After the first radiation the growth was cleansed daily with water and peroxide for three weeks. At the end of this time the mass was nearly half gone and the second application was made the

same as the first. The eyes were screened with rubber cut from ordinary automobile inner tubes.

The dosage of the second treatment was also fifteen hundred milligram hours. The face and eyes showed more reaction following this than was seen after the first application, probably due to the fact that the radium was placed nearer the skin due to the lessening in size of the tumor mass. About a fortnight after her second radiation the patient returned to her home in Florida with instructions as to the care of her nose. She returned on June 15th, and we were able to get the second photograph. This shows still some little opening into the nasal cavity on that side but it gives very little discomfort and bids fair to heal in completely.

This case is reported mainly to illustrate the efficiency of radium in certain fast growing skin cancers. These sufferers make the most grateful of any class of patients the writer has ever had.

Case II. G. W. C. Boy of nineteen. Referred by Dr. S. L. Cheshire of Thomasville, Ga. Past history apparently irrelevant. Present history, Aug. 8th, 1922, he was in a boating party near town. The boat in which were some half dozen young people capsized and the patient altho a good swimmer, exhausted himself in the rescue of others and was himself left drowning only to be dragged out and resuscitated. He was apparently doing nicely when a week later he went down with pneumonia. This was of a particularly stormy course and a week later aspiration revealed pus in his right pleural cavity. He was taken immediately to the hospital and about an inch and a half of the ninth rib was resected under novocain and adrenalin. On first opening the pleura we thought we had opened into the big gut. The colonic odor was most pronounced. Pus evacuated contained small brown particles as of feces, and also some larger fibrinous flakes like those usually found in empyemata of the pure pneumococcal type. Cultures from the pus yielded both *B. Coli* and pneumococci. The patient recovered.

This case is unique in the presence of colonic infection in the pleural cavity. We attributed this fact to the drowning experience some two weeks before in which the water aspirated might have contained *B. Coli*.

"FEAR NOT, THE COMFORTER WILL COME"

Daddy—"Well, my boy, what was the Sunday School lesson this morning?"

Tommy—"The teacher said: 'Don't get scared, you'll get your quilt.'"—Hygeia.

SIMPLE SUSIE

Susie—"I'd hate to be a hen!"

Papa—"Why, dear?"

Susie—" 'Cause then I'd have to lay eggs, and I don't know how."—Hygeia.

Breathes there a man
With soul so dead,
Who never to his friends hath said,
When the weather was hot
And his clothes sweated through,
"Say, boy, is it hot enough for you?"

—Hygeia.

HIGHER MATHEMATICS

A country lad went to New York and tried to secure a job on the police force. He passed the physical tests, but the written examination gave him a little trouble. One question was: "A man buys an article for \$12.25 and sells it for \$9.75; does he gain or lose on the transaction?"

After pondering over the question our rural friend finally answered: "He gains on the cents, but loses on the dollars."—Hygeia.

DIFFICULT DIAGNOSIS

The young mother was frantic. Her 2 year old daughter howled and howled and howled.

"Whatever is the matter with the child?" asked the father in despair.

His wife sank limply into a chair and began to weep, while the baby went on howling.

"I d-d-d-on't know!" sobbed the distracted mother, "It's either because she's eaten too many strawberries, or she wants more!"—Hygeia.

Doctor: "He'll be up in a day or two, Mrs. Jones. Why all this distress?"

Apprehensive Wife: "I was so afraid, doctor; all night he was practicing the harp on the bed-rails."—Pharmaceutical Advance.

Mother: "Now, Hazel, can you give me any reason why I should not punish you for being naughty?"

Hazel: "Yes, ma. Doctor said you weren't to take any violent exercise."—Selected.

A little girl was once told that polite people did not talk about their ailments in company or outside the family. So when a visitor asked her if she was well she said: "Well, in the family I have a stomach ache, but in company I'm quite well, thank you."—Exchange.

"Doctor," asked the invalid, "don't you think a change to a warmer climate would do me good?"

"Heavens, man!" replied the doctor, "that's just what I'm trying to save you from!"—Pharmaceutical Advance.

A colored man had been arrested for speeding.

"How many miles do you think you were going, Sam—about forty?" asked the judge.

"No, sir, I 'spects I was goin' about seventy," said the dorky.

"What kind of a car have you got, Sam?"

"Oh, I've got a Ford."

"I didn't know a Ford could go seventy miles an hour, Sam."

"Well, dis Ford o' mine is a special Ford. It's got a Ford chassy an' a Ford body, but I put into her a couple of Pierce Arrow glands."—Selected.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

Office of Publication. 208 Professional Bldg.,
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February, 1924

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M. C. PRUITT, M. D., Business Manager

Publication Committee
CHAS. USHER, M. D.
W. A. MULHERIN, M. D.
T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the state. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the state.

Editorial Department

STATE-WIDE HEALTH ASSOCIATION OF GEORGIA

Savannah, Georgia

In October last a large number of representative business and professional men met in Savannah for the purpose of studying the cause of Georgia's non-development in keeping with her importance and potentiality. After considering numerous suggestions, it was decided that our unsatisfactory health record in the Census Bureau at Washington was the most likely cause of our lack of more satisfactory progress.

In the discussions it was clearly shown that the Southern States that are making the greatest advances are those that are waging a successful fight on the five preventable diseases—Malaria, Hook Worm, Typhoid, Tuberculosis, Dengue.

As these states have reduced their incident of illness and inefficiency arising from these diseases, their bank deposits have increased, their new industries have developed, and their productivity has increased. And why? Simply because a well man is an efficient man, a sick

man is an inefficient one. A sick man is a consumer and a charge upon the community. A well man is a producer and an asset to his community. There is always an inverse ratio existing between disease and prosperity. As disease decreases, prosperity increases. These facts are self evident to anyone that is capable of thinking. Also it was brought out that the State of Florida—we can all remember when it was a swamp and a habitat for alligators and mosquitos—is appropriating twenty-five cents per capita for health. North Carolina is appropriating sixteen cents, South Carolina, thirteen cents, while Georgia, still believing in the survival of the fittest and visitations of a kind Providence who will look after us, is making the magnificent appropriation of three cents per capita for health—or \$90,000 annually. At the same time appropriating \$500,000 for the development of hogs, cows and the boll weevil. Is it any wonder that Georgia is not forging ahead more rapidly when we take better care of the health of our hogs and cows than we do of our children?

Taking Florida alone we find from authentic sources that during the year 1920 there were 481 deaths from malaria reported (This does not mean that 481 were all of the deaths from Malaria). In 1922, 584 deaths reported or an increase of 103 over 1920 and 116 over 1921.

Deaths in 1922 were reported from 139 counties showing that no county in the State is immune from the disease. When we estimate—which is true—that one death from malaria represents 400 cases of the disease. This would mean that during 1922 there were in this State 233,600 cases of malaria. Assuming that medical attendance, drugs, nurses bills, loss of time and other expenses that go with sickness and death in 233,600 cases of malaria IS COMPUTED AT \$3.00 PER DAY we will have an expense of \$1,635,200.00 annually to be charged to malaria alone; or fifty cents for every man, woman and child in the State. Yet Georgia is spending only three cents for each individual to prevent this tremendous toll in dollars and cents taken by Malaria.

We have not included the other four preventable diseases which it is estimated is giving us an annual loss in dollars of over \$45,000,-

000.00. It is not necessary to put up with this record. It behooves the people of Georgia to take an interest in their affairs and let the legislators know our views in no uncertain terms.

The only successful way to combat this financial loss and put Georgia before the Commercial World, as she should be, is to do as our neighboring Southern States have done, i.e., make our State Health Department an effective and efficient organization by appropriating sufficient funds to carry on the work of eradicating the five preventable diseases.

The improvement of Florida, North Carolina and South Carolina is due largely to better health conditions and Georgia must catch step. The method proposed by this convention to bring about this improvement is:

1. A closer and better understanding between the commercial bodies, the Medical Association of Georgia and the State, County and City officials.

2. The medical men are to put before their local Chambers of Commerce and Civic Clubs the facts and figures as to losses sustained through inefficiency and deaths due to preventable diseases, then have these various organizations to fully co-operate, and have the Ellis Health Law adopted for their respective counties.

3. With this mutual understanding and co-operation, the Ellis Health Law can be made a success. Then have the co-operating bodies convert their Legislators and State Senators to the necessity for an appropriation that will compare with Florida, North and South Carolina for Health Work in Georgia.

4. If this can be done in the majority of counties in Georgia, the State will then be in a position to cover the appropriation made by each county for better health conditions. The International Health Board and the United States Public Health Service will also contribute in money and personnel, as they are now doing in other States. It is estimated that under this method each county will receive \$3.00 for each dollar appropriated.

In conclusion it does seem that the business men of every community could see the need of saving a monetary loss of forty-five millions of dollars annually, the loss of time, inefficiency

and death with the intercurrent expenses of doctors, drugs and nurses that go hand in hand with tuberculosis, typhoid fever, malaria, hookworm and dengue.

The State-Wide Health Association stands ready to help any community that is desirous of taking up the problem of better health, and we sincerely hope that this letter will receive your careful consideration.

JOHN W. DANIEL, President.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

The Committee on Scientific Work desires the co-operation of every member of the Association in helping to arrange the best program possible for the next Annual Meeting, which is to be held in Augusta, in May. This will be the Seventy-Fifth Annual Meeting—the Diamond Jubilee. The largest attendance in the history of the Association is expected. Augusta assures us a royal welcome.

However, in order that there may be prepared a well-balanced and representative program, we wish to call the attention of all members to the following rules governing the Scientific Work:

1. Any member of the Association in good standing may send in a title for the program.

2. All titles must be sent in in writing on or before March 15th. They may be sent to the Secretary or to either of the members of this Committee (By-Laws, Chap. VI. Sec. 2).

3. By-Laws, Chapter VIII.

“Section 1. No address or paper before the Association shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject, except by unanimous consent.

“Section 2. All papers read before the Association, or any of the sections, shall become its property. Each paper shall be deposited with the Secretary when read.”

4. Resolution adopted 1921; “Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.”

5. All papers must be typewritten double-spaced and on one side of the paper. Each paper should bear name and address of author and should be correct from the standpoint of spelling, grammar, rhetoric, etc.

6. No member will be placed on the program whose dues for the current year have not been paid.

7. Other things being equal, preference will be given to those who were not on the program last year. We seek your aid and co-operation and assure you that we shall endeavor to serve you for the best interests of the Association.

B. H. Minchew, Chairman,
Chas. H. Richardson, Jr.,
Allen H. Bunce,
Committee on Scientific Work.

BRANHAM'S SIGN

January 24, 1924.

Editor, Journal of the Medical Association of Georgia,
Atlanta, Georgia.

Dear Dr. Bunce:

At the meeting of the Southern Surgical Association, in White Sulphur Springs, West Virginia, last December, Dr. Rudolph Matas, of New Orleans, read a paper on, "Vascular Surgery", in which he spoke of a phenomenon associated with arterio-venous aneurism, which has been known as "Wiegendorowitsch's Sign." This Russian surgeon described the phenomenon in 1915. In Matas' investigations he found that Dr. H. M. Branham, of Brunswick, Georgia, had described the same phenomenon in 1890, twenty-five years before. Dr. Branham exhibited his operation before the members of the Medical Association of Georgia, at their annual meeting in Brunswick, in 1890, reporting the case the same year in the International Journal of Surgery, Vol. III, page 250. Dr. Matas now gives credit for the discovery of this phenomenon to Dr. Branham, and thinks it should be called, "Branham's Sign." This is a great compliment from a man who today is the leader of surgery in the south, if not in the whole United States.

I am enclosing a copy of Dr. Branham's original paper which I think should be reproduced in the Journal.

Yours very truly,
F. K. BOLAND.

LETTER FROM AMERICAN MEDICAL ASSOCIATION

Chicago, Jan. 28, 1924.

Dr. Allen H. Bunce, Secretary,
Medical Association of Georgia,
65 Forrest Avenue,
Atlanta, Georgia.

Dear Doctor Bunce:

Section 3 Article V, of the Constitution of the American Medical Association reads:

Sec. 3. The total voting membership of the House of Delegates shall not exceed 150. The medical departments of the Army and of the Navy, and the United States Public Health Service and the scientific sections shall each be entitled to one delegate, and the remainder shall be apportioned among the Constituent Associations in proportion to their actual active membership as hereinafter provided in the By-Laws.

Section 3, Chapter I, of the By-Laws of the American Medical Association reads:

Sec. 3. APPORTIONMENT OF DELEGATES.—At the annual session of 1903, and every third year thereafter, the House of Delegates shall appoint a committee of five on reapportionment, of which the Speaker and the Secretary shall be members. The committee shall apportion the delegates among the constituent associations in accordance with Article 5, Section 3, of the Constitution, and in proportion to the membership of each constituent association as recorded in the office of the Secretary of the American Medical Association on April 1 of the year in which the apportionment is made. This apportionment shall take effect at the next succeeding annual session, and shall prevail until the next triennial apportionment, whether the membership of the constituent association shall increase or decrease.

The last reapportionment of delegates was effected at the Seventy-Second Annual Session, held at Boston in 1921. Another reapportionment will, therefore, be made at the Seventy-Fifth Annual Session of the Association to be held in Chicago, June 9-13, 1924. As the reapportionment will be made on the basis of the membership in constituent associations, *as that membership has been reported and recorded on*

the membership records of the American Medical Association on April 1, 1924, it is important that this office shall have complete reports of the membership of your association so that the names of all members may be duly recorded in this office before April 1, 1924.

This matter is brought to your attention now in order that you may remind the secretaries of your component county medical societies of the need of the fullest possible reports of membership in their respective organizations.

Delegates already elected or to be elected for service in the House of Delegates for the Seventy-Fifth Annual Session of the American Medical Association in June, 1924, will be in no way affected by the reapportionment to be made in Chicago.

On January 1, 1924, the membership of the American Medical Association, which, of course, is the combined membership of its constituent state and territorial associations, was 89,835. It is sincerely hoped that this splendid membership will be maintained and even increased by the affiliation of desirable and eligible physicians and that the membership in your state will be maintained at a figure that will insure that there will be no reduction of representation in the House of Delegates.

Very truly yours,

OLIN WEST,
American Medical Association.

Cook County Medical Society

The Cook County Medical Society announces the following officers for the year 1924:

President—Dr. H. W. Clements, Adel.

Vice-President—Dr. S. G. Etheridge, Sparks.

Secretary-Treasurer—Dr. L. R. Hutchinson, Adel.

Delegates—Drs. P. H. Askew, Nashville, and L. B. Lovett, Sparks.

Campbell County Medical Society

The Campbell County Medical Society announces the following officers for the year 1924:

President—Dr. R. T. Camp, Fairburn.

Vice-President—Dr. T. J. Busey, Tyrone.

Secretary-Treasurer—Dr. A. J. Green, Union City.

Bartow County Medical Society

The Bartow County Medical Society an-

nounces the following officers for the year 1924:

President—Dr. W. C. Griffin, Cartersville.

Vice-President—Dr. H. B. Bradford, Pine Log.

Secretary-Treasurer—Dr. T. Lowry, Cartersville.

Delegate—Dr. H. E. Felton, Cartersville.

Warren County Medical Society

The Warren County Medical Society announces the following officers for the year 1924:

President—Dr. F. L. Ware, Warrenton.

Vice-President—Dr. H. L. Earl, Jewell.

Secretary-Treasurer—Dr. A. W. Davis, Warrenton.

Delegates—Drs. F. B. Ricketson, Warrenton, and G. R. Maner, Warrenton.

Richmond County Medical Society

The Richmond County Medical Society announces the following officers for the year 1924:

President—Dr. T. D. Coleman.

Vice-President—Dr. C. J. Montgomery.

Secretary-Treasurer—Dr. J. D. Gray.

Delegates—Dr. W. A. Mulherin and Dr. G. T. Bernard.

Talbotton County Medical Society

The Talbotton County Medical Society announces the following officers for the year 1924:

President—Dr. J. B. Douglass.

Vice-President—Dr. J. E. Peeler.

Secretary-Treasurer—Dr. C. C. Carson.

Walton County Medical Society

The Walton County Medical Society announces the following officers for the year 1924:

President—Dr. H. L. Upshaw, Social Circle.

Vice-President—Dr. J. B. H. Day, Social Circle.

Secretary-Treasurer—Dr. J. K. McClintic, Monroe.

Delegate—Dr. J. K. McClintic, Monroe.

Irwin County Medical Society

The Irwin County Medical Society announces the following officers for the year 1924:

President—Dr. G. W. Willis, Ocilla.

Vice-President—Dr. S. L. McElroy, Ocilla.

Secretary-Treasurer—Dr. L. L. Whiddon, Ocilla.

Delegate—Dr. A. Harper, Wray.

Cobb County Medical Society

The Cobb County Medical Society announces the following officers for the year 1924:

President—Dr. E. M. Bailey, Acworth.

Vice-President—Dr. W. M. Kemp, Marietta.

Secretary-Treasurer—Dr. L. L. Blair, Marietta.

Delegates—Drs. W. E. Benson and Frank Mims, Marietta.

Henry County Medical Society

The Henry County Medical Society announces the following officers for the year 1924:

President—Dr. J. G. Smith, McDonough.

Vice-President—Dr. J. B. Weldon.

Secretary-Treasurer—Dr. W. P. Sloan, McDonough.

Delegate—Dr. R. L. Tye, McDonough.

Cherokee County Medical Society

The Cherokee County Medical Society announces the following officers for the year 1924:

President—Dr. Thos. J. Vansant, Woodstock.

Vice-President—Dr. Grady N. Coker, Canton.

Secretary-Treasurer—Dr. George C. Brooke, Canton.

Delegates—Drs. G. N. Coker and G. C. Brooke, Canton.

Clarke County Medical Society

The Clarke County Medical Society announces the following officers for the year 1924:

President—Dr. Linton Gerdine, Athens.

Vice-President—Dr. H. I. Reynolds, Athens.

Secretary-Treasurer—Dr. Jos. S. Stewart, Jr., Athens.

Delegate—Dr. C. Y. Decker, Athens.

Grady County Medical Society

Grady County Medical Society announces the following officers for the year 1924:

President—Dr. J. B. Warnell, Cairo.

Secretary-Treasurer—Dr. J. V. Rogers, Cairo.

Johnson County Medical Society

The Johnson County Medical Society announces the following officers for the year 1924:

President—Dr. T. L. Harris, Wrightsville.

Vice-President—Dr. S. M. Johnson, Wrightsville.

Secretary-Treasurer—Dr. J. G. Brantley, Wrightsville.

Delegate—Dr. R. E. Brinson, Wrightsville.

Burke County Medical Society

The Burke County Medical Society announces the following officers for the year 1924:

President—Dr. H. A. Macaulay, Waynesboro.

Vice-President—Dr. B. H. Smith, Keysville.

Secretary-Treasurer—Dr. J. B. Lewis, Waynesboro.

Delegate—Drs. J. M. Byne, Waynesboro.

Fulton County Medical Society

The Fulton County Medical Society announces the following officers for the year 1924:

President—Dr. W. E. Person, Atlanta.

Vice-President—Dr. Theodore Toepel, Atlanta.

Secretary—Dr. G. E. Clay, Atlanta.

Chairman Bd. of Censors—Dr. T. C. Davison, Atlanta.

Chairman Bd. of Trustees—Dr. E. C. Thrash, Atlanta.

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for the year 1924:

President—Dr. M. M. McCord.

Vice-President—Dr. R. O. Simmons.

Secretary-Treasurer—Dr. J. H. Mull.

Bd. of Censors—Dr. J. L. Chandler.

Delegates—Drs. J. C. Watts and W. J. Shaw.

Bulloch County Medical Society

The Bulloch County Medical Society announces the following officers for the year 1924:

President—Dr. W. E. Simmons, Metter.

Vice-President—Dr. A. Temples, Statesboro.

Secretary-Treasurer—Dr. F. F. Floyd, Statesboro.

Decatur-Seminole County Medical Society

The Decatur-Seminole County Medical Society announces the following officers for the year 1924:

President—Dr. Gordon Chason, Bainbridge.

Vice-President—Dr. J. I. Spooner, Donalsonville.

Secretary-Treasurer—Dr. J. P. Lewis, Bainbridge.

Delegate—Dr. R. F. Wheat, Bainbridge.

Thomas County Medical Society

The Thomas County Medical Society announces the following officers for the year 1924:

President—Dr. J. B. King, Thomasville.

Vice-President—Dr. S. L. Cheshire, Thomasville.

Secretary-Treasurer—Dr. C. K. Wall, Thomasville.

Delegate—Dr. C. H. Watt, Thomasville.

NEWS ITEMS

Dr. J. M. Montfort announces the opening of offices in the Hurt Bldg., Atlanta, Ga. Practice limited to internal medicine.

Dr. Chas. T. Nellans has opened offices for the practice of internal medicine in the Exchange Bldg., Atlanta, Ga.

Dr. G. R. Maner and Dr. F. L. Ware have formed a partnership for the general practice of medicine in Warrenton, Ga.

Dr. Eugene B. Elder has accepted the position of Assistant Superintendent with the Georgia Baptist Hospital, Atlanta.

An enjoyable event was the reception given by the Georgia Baptist Hospital in honor of Dr. and Mrs. B. L. Shakelford, January 1, 1924.

Dr. W. A. Walker has opened a hospital at Cairo, Ga. The medical profession is assured of an ample supply of radium to treat any case referred.

The Randolph County Medical Society will devote the entire meeting in February to cancer.

Dr. R. L. Carter has installed the first x-ray machine in Thomaston in his offices in the Farmers and Merchants Bank Bldg.

The John D. Archbold Memorial Hospital, which is being built by Mr. John F. Archbold as a memorial to his father, the late John D. Archbold, at Thomasville, will be one of the most modern in the Southland.

The Abner Wellborn Calhoun Medical Library, dedicated as a memorial to the late Dr. Abner Wellborn Calhoun, has been opened at the Wesley Memorial Hospital, Atlanta.

Dr. Frankwood E. Williams was re-elected Medical Director of the National Committee for Mental Hygiene at the annual meeting of the Board of Directors, held in New York City, on December 28. The following were elected members of the Executive Committee: Dr. William L. Russell, Medical Director, Bloomingdale Hospital, White Plains, New York; Dr. Walter E. Fernald, Superintendent, Massachusetts School for the Feeble-minded, Waverley; Dr. Stephen P. Duggan, Director, Institute of International Education, New York City; Dr. William A. White, Superintendent, St. Elizabeths Hospital, Washington, D. C.; Dr. Charles P. Emerson, Dean of the Medical School, University of Indiana, Indianapolis; Dr. C. Floyd Haviland, Chairman, State Hospital Commission, Albany, New York; Dr. Arthur H. Ruggles, Superintendent, Butler Hospital, Providence, Rhode Island, and Mr. Matthew C. Fleming, attorney, New York City. Dr. William H. Welch, President of the National Committee for Mental Hygiene, presided.

MEETING OF SURGEONS

Clinical Congress

of

AMERICAN COLLEGE OF SURGEONS

GEORGIA-ALABAMA-FLORIDA SECTION

Held annual meeting in Atlanta, Jan. 31-Feb. 1. The following program was carried out.

WILLIAM S. GOLDSMITH, M.D., Atlanta, Presiding

Chairman's Remarks

The Hospital Requirements of the American College of Surgeons

ALLAN D. CRAIG, M.D., Chicago, Associate Director American College of Surgeons
—Director of State and Provincial Activities

The Value of Physiotherapy in Modern Hospital Service

JAMES T. CASE, M.D., Battle Creek, Surgeon Battle Creek Sanitarium and Chief of the Department of Roentgenology

Hospital Standardization from the Administrator's Standpoint

WALKER WHITE, Esq., Atlanta, Superintendent Wesley Memorial Hospital, representing the Protestant Hospital Association

The Underlying Principles of Hospital Standardization

REV. C. B. MOULINIER, S.J., Milwaukee, President Catholic Hospital Association

How Standardization Can Help Your Hospital

ROBERT JOLLY, Esq., Houston, Texas, Superintendent Baptist Hospital

ROUND TABLE CONFERENCE AND GENERAL DISCUSSION

The Practical Application of Standardization in the Hospital

Conducted by—

MALCOLM T. MACEachern, M.D., Chicago, Associate Director American College of Surgeons—Director of Hospital Activities and President American Hospital Association

Assisted by—

STEVE R. JOHNSTON, Esq., Atlanta, Superintendent Grady Memorial Hospital.

WILLIAM P. HARBIN, M.D., Rome, Ga., Surgeon Harbin Hospital.

LOYD NOLAN, M.D., Birmingham, Ala., Surgeon Employees' Hospital

W. T. HENDERSON, M.D., Mobile, Ala., Visiting Surgeon Providence Infirmary and Mobile City Hospital

WILLIAM S. MANNING, M.D., Jacksonville, Fla., Ophthalmologist St. Luke's Hospital

MARRIAGES

Dr. and Mrs. W. B. Emery, of Atlanta, announce the marriage of their daughter, May Wheeler, to Mr. Mitchell Albert Nevin, January 4, 1924.

Dr. L. C. Allen, of Hoschton, was married to Miss Isabelle Canning, of Flowery Branch, December 27, 1923.

OBITUARY

Dr. J. L. Durham, of Woodville, Ga., died at the age of 70, December 25, 1923. Dr. Durham

was widely known in Georgia. For many years he was private physician of the late Senator Thomas E. Watson. Senator Watson's only son was named for Dr. Durham.

Dr. George Chapman, prominent physician of Milledgeville and Dublin, died December 26, 1923, from pneumonia.

WANTED.—Competent x-ray Technician desires position. Has just completed the regular course for x-ray technicians given by the Chicago Post-Graduate Medical School and Hospital. For further information write "X-ray Technician", care Journal, 65 Forrest Ave., Atlanta.

BOOKS RECEIVED

MEDICAL RECORD—VISITING LIST published by Messrs. William Wood & Company, 51 Fifth Ave., New York. Contains Calendar, Estimation of the Probable Duration of Pregnancy, Measurements, Prescriptions and other valuable information. Price \$2.00 net.

ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE MEDICAL ASSOCIATION

(Continued from page 39, January Issue)

The Plan of the State Medical Association of Texas

Dr. Holman Taylor, Fort Worth, Texas, spoke on this subject, saying that in his state during the past ten or fifteen years he has become convinced that if they are to handle the legislative situation in medical matters they must give the lay people a working knowledge of medicine. In 1907, when they passed a medical practice act, they undertook to educate legislators on medical matters and succeeded admirably. In a few weeks they developed a legislature that was 90 per cent. favorable to the medical profession. Their board of councilors has been authorized to raise a fund of not less than fifteen thousand to twenty thousand dollars for the use of the Council on Legislation and Public Instruction for the purpose of educating the people. In Texas they are not going to the public merely to show the view which the regular profession has of the so-called cults and sects, quacks and fakers. It is going to be a public

health matter, and they are going to educate the public that a standardized medical profession is the first principle in public health; that there cannot be any public health without an educated, ethical, honorable, and high-minded standardized medical profession.

The Functions of the Bureau of Health and Public Instruction of the American Medical Association

Dr. John M. Dodson, Chicago, spoke on this subject, and among other things said that this Bureau assists in the business of giving authoritative instruction and the necessary information to the non-medical public. Its functions are the general education of the public. Speaking of the relation to teachers and children, he said we must be careful lest we stress too much the idea that health and the efforts to obtain health are merely matters of dodging disease. Some of the leading thinkers in the educational world are of the opinion that we stress disease too much in the minds of children so that we get them thinking of disease and of becoming hypochondriacs rather than turning our attention toward the business of developing strong, vigorous, efficient bodies and a happy healthy people.

Speaking of Hygeia, he said an effort has been made to make it as attractive, interesting and authoritative as possible. It is not easy to get articles; it is much more difficult to get the right kind of articles written in the right way. The editorial board welcomes suggestions, comments and criticisms of Hygeia at any time.

As to the education of the public by word of mouth, addresses, radio broadcasting, etc., he said that the old speakers bureau was abandoned at the time of the war and it has not been revived. It is important to provide material for speakers and to assist them in procuring this material for the making of such addresses. It does not seem wise to him for the American Medical Association at this time to attempt to prepare movie films for sale or rent as it can be much better done by organizations engaged in that business, but there are large numbers of educational films along medical and health lines which are to be had.

As to periodic health examinations, when a

man or woman presents herself to a physician, he or she should get value received; that the proper conduct of that examination should hook up with the physical findings found, and the patient should get an examination worth while for the fee which is to be paid.

Educational Effort Through the Public Press

Dr. E. J. Goodwin, St. Louis, Missouri, said the press today is apparently more in sympathy with reputable medicine than it was a few years ago. Progress in education in all walks of life has made great strides since the American Medical Association demanded that it shall be evident to the medical profession that the colleges accept only persons who have had some evidence of medical education equivalent to a comprehension of the problems in medicine. In going to the public press we have got to recognize the fact that the press has its own methods of presenting material that is furnished to it. They will not publish anonymous articles. Matters of information should begin with the county societies on up through the state societies and into the American Medical Association. What shall be said and by whom it shall be said, is a matter for the county, state and national societies to govern. Members of the medical profession should confine themselves to matters that interest the public from the standpoint of health, hygiene, sanitation, preventive medicine, and the development of curative medicine.

Dr. J. F. Gallagher, Nashville, Tennessee, discussed the attitude of the medical profession toward cults. He said the regular medical profession is the only group who offer themselves for the prevention of disease and the amelioration of suffering and prolongation of life, that has stood the test of time. The great number of cults and their constant recurrence are a real menace to society, although not a very dangerous one. We would not be upholding the traditions of the profession if we did not inform the people of the existence of a menace whether it be small-pox or chiropractic. But this must be done in a manner that is free from any suspicion of greed or gain or sordiness on our part, and with the dignity that is also a tradition with the profession.

The most practical plan in dealing with the

cults which will produce the quickest results is legislation. There should be the passage of laws requiring certain educational qualifications. These qualifications should embody a reasonable preliminary education and a knowledge of the cause, nature and prevention of disease. The medical profession need have no fear of its place in the hearts and minds of the people so long as its members maintain the cherished heritage of our ancestors of science, humanity and truth.

In the general discussion Dr. W. D. Chapman, Silvis, Illinois, does not believe in placing prime importance on the matter of legislation in dealing with cults. In the daily work of the medical profession the practitioner who feels that the member of any cult is his competitor is doing himself and his patients injustice. Patients who leave a practitioner for a while and experiment with the cults come back presently. They are better satisfied and better patients than they were before. There is nothing for the medical profession to fear about cults.

Dr. Walter P. Bowers, Boston, Massachusetts, said the Medical Society of Massachusetts conducts at regular intervals public meetings throughout the different districts and has made special effort to invite the public so that they may be informed of facts relating to public health and the important questions of preventive medicine. The cults have never been attacked. In Massachusetts they have succeeded in maintaining a single standard of medical practice, and it has worked out remarkably well.

Dr. W. P. Eagleton, Newark, New Jersey, stated that in his state in 1920 they built up a medical practice act after years of hard labor which is operating very well. The medical profession of New Jersey regard it as their job to tackle every health problem that is presented in the legislature or by any county society.

Dr. C. L. Booth, Portland, Oregon, said that in January next they have some pernicious bills coming up, one asking the committee to establish a separate board for chiropractors, and another one allowing the osteopaths practically the same privileges as members of the medical profession, that is, allowing them to do major surgery and to use all sorts of drugs, although

they were not examined in these subjects. They started their fight by getting in touch with medical men in various parts of the state and having them work on committees and using their influence on legislators in the various districts. They knew where every legislator stood toward medical education and toward the cults, and as a result the pernicious bills that came up were killed.

Dr. Charles M. Yater, Roswell, New Mexico, said that when any medical subject comes up before the legislature in New Mexico they are neither democrats nor republicans, but are all doctors.

Dr. Allen H. Bunce, Atlanta, Georgia, said that they have tried to maintain contact with the public through their Committee on Health and Public Instruction by having a strong committee whose members are appointed for three years. They have other problems to face in Georgia besides the cults, such as the problem of directing the public health activities of women's clubs, clubs concerning child hygiene, the tuberculosis association, the cancer association, etc. The members of the Medical Association of Georgia believe that this matter should be governed by the county medical society. They tried to convince the members of the state board of health of the advantages of co-operation in this work. They have done this through their Committee on Health and Public Instruction by getting them to co-operate with lay organizations, forming a state health council which has membership from the state association and various women's clubs, with delegates from the various civic organizations throughout the state, and up to the present time they have this work established in 90 counties. The object is not only to teach the public on medical subjects but to direct their energies into the proper channels.

Dr. Wendell C. Phillips, New York City, outlined what had been accomplished by the Medical Society of the State of New York, and said that New York State has had no trouble with adverse medical legislation which was detrimental to public health.

Dr. Morris Fishbein, Chicago, spoke of the

way in which the American Medical Association is trying to use the newspapers in disseminating medical knowledge. To use the newspapers properly, it is necessary to study the way in which newspapers work. Newspapers demand that material be prepared especially for them.

Dr. Edward H. Ochsner, Chicago, said we are going to be asked within the next five years to assimilate a large number of osteopaths, a few of whom are well trained, but a very large number of them utterly incompetent. Osteopaths are hard pressed, nearly all of their patients having been taken away from them by chiropractors and other cults. He said we are literally teaching men in our medical schools today not to become practitioners of medicine but professors of medicine, and unless we begin to teach our medical students the things they need in the practice of every day medicine, we will have to meet the osteopathic situation within the next five years.

Dr. Oscar Dowling, Shreveport, Louisiana, said he frequently got complaints from people. Two ladies called on him and told of different doctors whom they consulted. These doctors casually looked them over and were unable to tell them what their condition was. They were not any better after passing through the hands of these physicians. He knew of instances where there has been a mistake in diagnosis due to the fact that the doctors had not taken time to make a careful examination and find out the condition then existing.

Dr. D. C. English, New Brunswick, New Jersey, cited an instance which corroborated what was said by Dr. Ochsner regarding defects in the education of medical students.

Two years ago the Maine Medical Association voted to co-operate in carrying out periodic health examination work, and in a quiet way they have been circulating among the profession and through the volunteer health societies their ideas along that line. To carry out a plan of this sort successfully, he believes we have got to appeal to the physicians as a body and to the physician as an individual. The medical profession are farther away from their clientele and from the public than any other business organization,

and this is one of the means he believes that will bring the physician and the public closer together and bring into the offices of physicians the people whom they serve, and he believes it will be one of the best antidotes for cults.

In the discussion, Dr. Walter F. Donaldson, Pittsburgh, Pennsylvania, said that in his state they look upon periodic health examinations as one of the phases of postgraduate work. They are gradually working out this matter as a part of the postgraduate program.

Medical Defense and Indemnity Defense Funds

Dr. Emma W. Pope, San Francisco, California, said that medical defense in California was organized by the State Medical Society in 1909. Every member in good standing received the services of the society's attorneys, and the society paid court costs in an unwarranted case against him. The Council reserved the right to pass upon the merits of the case. The introduction of medical defense was probably responsible for a rapid increase in the society's membership. The costs of defense arose during the first four years in an almost arithmetical progression. During the last three years there was an annual increase of two thousand dollars, making the total cost during three previous years successively \$5,200.00, \$7,000.00 and \$9,000.00. Per capita expense changed from 42 cents the first year to \$3.52 the last. This defense carried no indemnity feature. Any member unprotected by a commercial policy and unfortunate enough to have final judgment entered against him, had to pay this judgment from his own resources. From a legal standpoint, the success of this defense was marked. The conduct of medical defense was apparently so satisfactory to the society that they decided to add to their medical defense an indemnity feature. In 1916 the House of Delegates approved the formation of an indemnity defense fund out of which to make settlements or to pay judgments. This fund was to become operative when 300 members had signed up.

Dr. Wendell C. Phillips, New York City,

stated that in New York State their members have been well defended and the court decisions have been on the side of physicians.

Dr. John B. Morrison, Newark, New Jersey, said they have a system in his state which has worked out very well. Besides the general protection that protects all of their members, they have group insurance which they carry with the Casualty Insurance Company of Baltimore.

Dr. R. B. Adams, Lincoln, Nebraska, said that in his state they pay all costs of insurance but no indemnity. They have never lost a suit. As a result of their defense committee and its work, it is practically impossible to get one doctor to testify against another.

Dr. Allen H. Bunce, Atlanta, Georgia, said medical defense in his state was instituted in 1916 to apply to all members of the Association. The dues at that time were only \$3.00. In 1920 they found it necessary to increase the dues to \$5.00, and notwithstanding this increase in dues the membership has increased gradually each year. There is no extra charge for medical defense. Since instituting medical defense they have lost only one case.

Dr. D. S. Fairchild, Clinton, Iowa, said that in his state they carry on medical defense as a function of the state society. It has been in operation fifteen years, and they have had suits or claims to the amount of \$2,261,669., showing the activities of this plan in Iowa. They pay no indemnity, but they pay the expenses of the suit.

Dr. William L. Rich, Salt Lake City, Utah, expressed himself in favor of the American Medical Association attempting to formulate a plan that can be carried out by the various states.

Dr. Walter F. Donaldson, Pittsburgh, Pennsylvania, said that in his state they had successfully defended 167 suits. They do not attempt to put on any group plan. They furnish members with all legal defense.

Automobile Liability Insurance

Mr. G. H. Winfrey, Richmond, Virginia, expressed the hope that the members of the conference would see the advantage of endorsing a movement to take care of physicians' malprac-

tice insurance and automobile liability insurance. It is estimated that 10,000 people are killed in America every year through careless drivers of automobiles, and of \$150,000,000 provided as funds for reckless drivers, it is estimated that the physicians of America contribute approximately \$3,000,000 a year which is six times as much as they give to the American Medical Association, and seven times as much as they give to the state societies. Of that three millions of dollars indemnity covered in the policies of physicians, \$300,000 is used in paying their own losses. A million and a half dollars goes to the agents and the companies for underwriters' expenses and to pay the losses of the ignorant drivers of automobiles who show very little regard for the welfare of other people in the street.

If a scheme could be carried out which would enable physicians to use the agent's profit in that business for the benefit of state societies, we will have done one of the finest things for the medical profession and public that can be done.

He presented a scheme which he had worked out with the help of two insurance actuaries which is not organized in connection with the American Medical Association or any state society, but is an independent corporation which will not involve doctors in any way. It is purely a mutual liability insurance company which takes care of automobile liability insurance and of malpractice insurance. The amount each man is to pay the first year is the premium now demanded of stock companies.

Dr. Donaldson thought it would be better for Mr. Winfrey to go on with the automobile liability insurance scheme and drop medical defense.

Dr. Woodward said that he does not recall any state which is at present operating an indemnity feature in connection with medical defense. State organizations usually provide only for the expenses at the trial.

Dr. West said that Mr. Winfrey has formulated a plan that will save to physicians of this country money on their automobile liability insurance. He doubts, however, the advisability of the conference placing itself on record as en-

dorsing the plan presented as the matter would have to be considered by the state associations.

Dr. William C. Woodward, Chicago, discussed the activities of the Bureau of Legal Medicine and Legislation of the American Medical Association. He read a large number of questions and inquiries that were sent to the bureau to be answered.

Dr. Frederick C. Van Sickle, Harrisburg, Pennsylvania, stated that he finds the co-operation and assistance of Dr. Woodward of immense value to him as Executive Secretary of the Medical Society of the State of Pennsylvania. The Department over which Dr. Woodward presides he said is not well understood by the average man engaged in the practice of medicine. If each state would act as an intelligence office for the members of the profession of that state, it would facilitate the work Dr. Woodward was doing.

Dr. W. P. Eagleton, Newark, New Jersey, said in his state they have a definite policy which is the protection of the medical men of New Jersey and the furtherance of the respect in which they are held by the citizens. New Jersey is the only state in which a bill has been passed in regard to venereal control in relation to the marriage act. They have enlisted the sympathy and co-operation of the women of the state by trying to educate them that this is a medical problem to be handled by the medical profession instead of turning it over to lay bodies who have no knowledge of medical matters and are incompetent to handle the proposition.

Dr. Woodward, in closing, said it would be a great advantage if the several state societies would formulate legislative programs and policies; that if he could have in his office a formal statement of the legislative programs and legislative policies approved by each one of the state organizations, it would be very helpful.

On motion, the conference adjourned *sine die*.

Abstract

Nonsurgical Treatment of Hemorrhoids.—Internal hemorrhoids of second and third degree are treated by Pruitt by the injection of a solution composed of 95 per cent. phenol, 1 part;

glycerin, 3 parts; water, 4 parts. From 2 to 6 drops, according to the size of the hemorrhoid, is injected into the center of each tumor with a hypodermic syringe, using a sharp 24-gage needle. Not more than two tumors should be injected at one time. One week should elapse before other tumors are injected. This treatment is said to cause little pain, but is followed by considerable swelling of the injected hemorrhoid. When the hemorrhoid is not very large, the patient may go about his work next day. But usually it is necessary to remain in bed for from one to three days after treatment. Pruitt claims to have had a large experience with the method during and since the war. The treatment is said to be especially valuable in that large class of cases in which a general anesthetic is unsatisfactory. Results and mortality compare favorably with those obtained by more radical methods.

Ureteral Anomaly.—In the case cited by Watt the preoperative diagnosis was inguinal hernia; operation disclosed not a hernial sac but an extraperitoneal sac, tubular in shape, admitting two fingers readily, running upward and backward toward the left kidney. It had no evident connection with the bladder. The spermatic cord lay somewhat mesial and posterior to this sac, and appeared normal in every respect. Attached to its posterior wall, but entirely outside, was a small, tubular structure the size of a lead pencil, closely resembling a normal ureter, with one exception, it could not be made to function. The subsequent findings in this case convinced Watt that this sac was unquestionably connected with the left kidney, and that this kidney was useless. There was communication between this sac and the bladder originally, because the fluid excreted by the left kidney was being drained off, although some remained always in the sac. Evidently this was a case of double ureter, one functionless, the other greatly dilated as a result of partial obstruction.

TREATMENT BY NEGLECT

Theodore Diller, Pittsburgh (Journal A. M. A., Dec. 22, 1923), is of the opinion that there are patients who are examined far too much. The self-centered psychoneurotic delights in examinations, reexaminations and more examina-

tions. And in these days of many clinical procedures and manifold laboratory tests there is great risk of overexamining certain of the psychoneurotics. There is a judicious neglect which the physician makes in his visits. It is extremely important and necessary that enough time be given to hear the patient's story; but it is a mistake to spend time in hearing undue repetitions of this story. While the first visit may be of an hour's duration, the next one may be half an hour; and other visits of a minute and half may be most appropriate. There are times when the patient is much better visited once a week or once in two weeks rather than every other day. There is a type of psychasthenic patient that leans on drugs, on appliances or members of his family, and on his physician. He does the maximum leaning instead of the minimum leaning, and does not look forward to the time when he will not lean at all. The job of the physician is to lead him to lean less and less and, if possible, to walk alone and not lean at all.

BRONCHIAL ASTHMA COMPLICATING CARDIO-VASCULAR DISEASE

Various types of cardiovascular disease may give rise to so-called asthmatic attacks. The presence of a grave cardiovascular defect has been considered heretofore sufficient evidence for differentiating asthma associated with it from that of the allergic group, and assigning to the circulatory lesion the responsibility of the paroxysmal dyspnea. That this assumption is not always valid, is illustrated by the cases cited by Joseph Harkavy, New York (*Journal A. M. A.*, Jan. 12, 1924). One was a case of mitral stenosis and aortic insufficiency with a history of asthmatic attacks for a number of years, both winter and summer. The patient was tested out and found to be sensitive to chicken feathers, cat hair, and the pollen of corn, clover and timothy. The offending proteins were removed, and the patient was at the same time desensitized. The cardiac insufficiency disappeared, as was shown by the absence of the pulmonary signs, and there was decided diminution of the dyspnea. The patient, thus far, has no longer

had any asthmatic attacks. This had been the longest remission that she had had in the last five years. The second case was one of mitral stenosis and insufficiency, with an asthma of five years' duration, preceded by a number of "colds" in the head. The asthma was associated with bloody expectoration, which in all probability was due largely to the mitral stenosis and pulmonary congestion. She was found to be sensitive to the epidermals and pollens. Treatment with these relieved the asthma, abolished the continuous dyspnea, and restored the functional efficiency of the heart by relieving the strain on the right ventricle. A third case was one of general arteriosclerosis and auricular fibrillation with a history of hypertension followed by a fall in tension coincident with myocardial insufficiency as a result of influenza. All four cases were accompanied by asthmatic attacks. In none of the four cases of cardiovascular disease with a history of asthma was the asthma due to the organic cardiovascular disease.

ROLE OF TRAUMA IN THE ETIOLOGY OF ORGANIC AND FUNCTIONAL NERVOUS DISEASE

The assertion that trauma may originate cerebral tumors, according to S. A. Kinnier Wilson, London, England (*Journal A. M. A.*, Dec. 29, 1923), is unjustified and obsolete. This is also true of disseminated sclerosis. Various cases of neurosyphilis, including tabes and general paralysis are on record, in which an apparent connection between trauma and the appearance of symptoms of general paralysis, for example, is sufficiently impressive. In the absence of spirochetal infection no one will now admit that trauma, per se, can cause neurosyphilis in any of its manifestations. Can it actually initiate a morbid process on the part of the spirochete, in the sense that the latter otherwise would have remained forever latent and innocuous? Put thus, the question can scarcely be answered in the affirmative; yet who shall say that a direct negative represents the only possibility? Since there must be some limit to the interval of time elapsing, after an alleged injury, ere symptoms appear, Wilson suggests that in the case of or-

ganic nervous disease it should be restricted at the widest to one week. The author's general standpoint is that he is unable to understand how a single trauma can cause a progressive neural degeneration of abiotrophy; still less a progressive neural toxidegeneration. He is convinced that the solution should be sought in the biochemical field of intrinsic neural "life and death," and not glibly assign progressive degenerative processes to the action of a "shock"; even assuming a concussion so bad as to produce, on a small scale, fragmentation of myelin, we know, as a histologic fact, that scavenging takes place very promptly and that neural regeneration is equally sure. This being so, the view that trauma may on occasion cause neural abiotrophy of a progressive character is oposed to the facts of neuropathology. As for epilepsy, Wilson believes with Turner when he insists that "it is difficult to avoid the conclusion that something more than local tissue alterations are requisite for the production of the seizures of traumatic epilepsy, and the determining agent, in my opinion, is an inherited or inborn constitutional predisposition to nervous instability and epilepsy." The war has shown a thousand times how the genuine effects of concussion, cranial or spinal, pass off eventually, with a complete return to the normal; but if they persist, in the absence of evidence of objective change, it may be taken as an infallible rule that the condition has ceased to be one of concussion. Conscious and unconscious motives also must be taken into account.

CARCINOMA OF THE RECTUM

In a survey of forty-four cases of carcinoma of the rectum Ellis Fischel, St. Louis (Journal A. M. A., Jan. 5, 1924), has been impressed with two points which appear to be significant, (1) That the earliest most frequent symptoms—bleeding and diarrhea—are not regarded by either patient or physician as indicative of the possibly serious nature of the disease; (2) That carcinoma of the rectum frequently remains localized to the rectum and contiguous tissues for an unexpectedly long period of time. In at

least 33 per cent. of the cases in this series, correct treatment could have been advised earlier had physicians made a digital rectal examination. In 30 per cent. of the cases, earlier correct treatment might have been given if the patients had realized that their apparently trivial symptoms might be due to cancer and had consulted a physician earlier. In 63 per cent. of the cases in this series the patients might have had earlier correct treatment. Until the underlying cause of cancer is discovered and a method for the elimination of this cause is discovered, Fischel believes that the view should be held that "once a cancer patient, always a cancer patient." Viewed in this light, any operation or other procedure that relieves suffering or prolongs a useful life is of value, and operation for cancer of the rectum, even in advanced cases, should be considered not a method of last resort which leaves the patient in a state little, if any, better than death itself, but a hopeful procedure with the possibility of indefinite prolongation of useful life. Fischel advocates surgery followed by radium treatment.

REMOVING DEEP SUTURES

To avoid causing pain and to ensure removal of supportive retention sutures, Frederick L. Smith, Rochester, Minn. (Journal A. M. A., Jan. 19, 1924), instructs the patient to execute deep abdominal breathing, and then by gentle traction, removes the suture on inspiratory and occasionally on expiratory movement of the abdominal wall. If the suture does not loosen on slight traction, the patient is instructed to take several deep breaths, which in turn distend and retract the abdominal wall, thereby loosening the fibrous adhesions to the ligature, and in nearly every case, the suture will be released. This procedure is said to do away with the so-called "locked suture," which is a misnomer in most instances, since the suture is bound (locked) by granular attachments of connective tissue elements. Cutting the sutures one day and removing them at the next dressing is good practice.

A NEW ALKALINE SOLUTION OF IODIN FOR USE IN THE GRAM STAIN

Robert A. Kilduffe, Los Angeles (Journal A. M. A., Dec. 29, 1923), modified the iodine solution by the addition of sodium bicarbonate and found that this alkaline solution gave satisfactory results and, seemingly, remained stable, showing no deterioration after some months. The effect is due, apparently, to the neutralization of the acid formed in the iodine solution and, perhaps, to any that may be present in smears made from acid secretions. The modified formula for the iodine solution is: iodine, 1 gm., and potassium iodide, 2 gm., dissolved in distilled water, 240 c.c.; after the iodine and potassium iodide are dissolved, 60 c.c. of 5 per cent. aqueous solution of sodium bicarbonate is added.

MONGOLIAN IDIOCY IN BOTH TWINS

August Strauch, Chicago, (Journal A. M. A., Dec. 29, 1923), records two cases of mongolian idiocy in twins, the first born of young, healthy parents. The occurrence of a mongolian idiot with a normal twin has been observed only in double ovum twins, as far as known. Mongolism in both twins has been described only in twins of the same sex. They are probably single ovum twins. Strauch believes that the conception of mongolism being due to an endogenic factor seems to find support in these observations.

The Progress of Medicine

As soon as the laboratory man, because of a more complete knowledge of the clinical branches of medicine, begins to appreciate the work and aspirations of the clinician, as soon as the clinician possesses a better knowledge of the fundamental sciences, then, says Arnò B. Luckhardt, Chicago (Journal A. M. A., Aug. 4, 1923), will both cease to avoid each other as bad medical company. With a common interest and a common knowledge, aided by detailed information of their own respective specialty, they will attack with vigor and effect problems of immediate practical moment. His-

tory reveals that medicine has evolved to its present status because of the work of both types of investigators. But the progress might have been faster had clinicians following the lead of Harvey and laboratory workers following the lead of Claude Bernard and others kept in sympathetic touch with one another instead of cultivating a mental aloofness or critical attitude toward one another. As a result of concerted action, scientific medicine will make more rapid strides, the education of our medical students will improve, the fundamental sciences will in turn develop at a more rapid rate—all of which will redound to the more certain control of disease and cure of the sick.

Infectious Jaundice in the United States

In his report on an outbreak of jaundice which occurred at Halifax Court House, Va., in 1857-1858, Faulkner states that the disease occurred in Norfolk, Va., during the War of 1812. This, according to George Blumer, New Haven Conn. (Journal A. M. A., Aug. 4, 1923), is the first record of its occurrence in the United States, and no further outbreak is recorded until 1839, when it appeared at Jacksonville, Ala. From 1812 to 1886 there are but eleven outbreaks recorded south of Mason and Dixon's line, four of them in Alabama. The remaining two occurred in Orange, N. J., in 1858, and in Montgomery County, Pa., in 1860. During this period only one outbreak is recorded in any one year, with the exception of 1860, when the disease appeared in Richmond, Va., and in Montgomery County, Pa. Beginning with the late eighties of the nineteenth century, reports become more frequent, and records of fifty-one outbreaks occurring between 1886 and 1920 have been obtained. During this period as many as seven outbreaks occurred in one year, and these were in widely separated districts. The disease no longer remained confined mainly to Southern states, but, was found all over the United States except in some of the Pacific Coast states; it also appeared during this period in the province of Ontario. Begin-

ning in 1920, but more particularly in 1921 and 1922, numerous epidemics were observed, of which more than 200 occurred in New York state alone, constituting the only really state wide incidence of the disease on record. Up to the present the disease has been reported in every state except Arkansas, Delaware, Florida, Kentucky, Louisiana, Mississippi, Nevada, Oklahoma and the District of Columbia. Blumer details the clinical history of this disease. It may occur in small family or institutional outbreaks or as a widespread disease with local foci scattered through an entire city, country district or state. It is mainly a disease of adolescence, attacking the two sexes equally. The exciting cause is unknown. Fatalities are lacking in most epidemics; when they occur, the victims are usually pregnant women or young children, and the fatal cases resemble acute yellow atrophy of the liver. Catarrhal jaundice, so called, is probably the sporadic type of the disease.

A VALUABLE CONTRIBUTION OF ANIMAL EXPERIMENTATION

The beneficent help that experimentation on animals has given to practical medicine in the past continues to be manifested in the current history of medical progress. If our citizens in scientific centers are to be encouraged, as was urged in a recent issue of *The Journal*, to support the efforts of investigators to secure vagrant animals that may be devoted to the endeavor to lessen disease and prolong life, it will be advisable to keep some of the striking benefits clearly before physicians. In truth, scarcely a week goes by without registering in the domains of the experimental sciences some important finding through biologic methods that is likely to attain application in diagnosis or therapy. An instance of immediate significance has just been recorded by Warren and Whipple.^a It is concerned with some of the unsuspected dangers of the roentgen ray.

Radiant energy of the type represented by radium is of interest because of its lethal influence on pathologic growths and on bacteria.

The ultraviolet rays and lights that emit a large proportion of them have been employed as germicides in surface wounds. The penetrating power is slight, however, so that they can have little effect on deeper structures. The sufferings of the pioneers in the use of the roentgen rays indicate the severe disturbances which radiant energy of that type can produce. The skin burns resulting from exposure to the roentgen ray are particularly familiar; but the studies of Warren and Whipple seem to leave little doubt that the intestinal epithelium is at least as sensitive as the skin epithelium, and it may be more sensitive when we consider its increased distance from the roentgen-ray target and the intervening body tissues. Tests on animals show that the intestine can be so injured by the roentgen ray as to produce ulcers that are no less chronic than the familiar skin lesions.

There are scattered indications that the lessons learned through irradiation of the laboratory animals apply equally well to man. Erythema doses or larger doses given over the abdomen or the intestinal areas may cause injury to this sensitive intestinal epithelium. Particular care should be taken when "cross fire" is used over areas that include intestinal coils, as the loops may be seriously injured. As Warren and Whipple carefully point out, the sensitiveness of the intestine, in contrast to some of the other internal organs, to penetrating irradiation must not be interpreted as a contraindication to the use of hard or short wave length roentgen rays produced by the modern roentgen-ray tube and high power machines. Radium, they add, can produce serious injury, but this does not contraindicate its use in proper cases, with a clear understanding of all its effects. Their experiments indicate that these hard roentgen rays can injure intestinal cells deep in the abdomen, and this arouses hopes that similar influence may be exerted on deep lying tumors; but careful judgment is required when considerable doses of roentgen rays are to be given so as to involve intestinal areas. Thus the observation on the common laboratory animals indicating that irradiation over the abdomen can cause a common intestinal pathologic condition and

clinical pictures gives, on the one hand, due warning to the radiologist who contemplates radiotherapy of abdominal areas; and, on the other, it points to new possibilities of progress through the use of potent radiations.—*Jour. A. M. A.*, Dec. 8, 1923.

¹ Impounded Animals for the Service of Medicine, editorial, *J. A. M. A.* 81: 1611 (Nov. 10) 1923.

² Warren, S. L., and Whipple, G. H.: Roentgen-Ray Intoxication, *J. A. M. A.* 81: 1673 (Nov. 17) 1923.

SCANDAL OF MEDICAL LICENSURE

The newspapers, and particularly those of the East, have been arousing considerable public interest by their discussions of the licensure scandal in Connecticut. The Connecticut investigation followed the recent expose by the *St. Louis Star* of the ease with which a diploma was purchased in Missouri. This expose directed the limelight on the serious conditions existing in other states, particularly Connecticut and Arkansas, which have been made the dumping ground of graduates of low-grade medical schools. For more than five years, *The Journal* has again and again warned these two states that their eclectic boards constituted a potential menace to their citizens. Moreover, provision for reciprocity between these and other states made these boards a menace to other states. Now that the scandal has burst upon the community, public interest has been aroused, and public officials have been encouraged to take action. The situation carries a lesson to every other state—a lesson that the Council on Medical Education and Hospitals and *The Journal* have been reiterating steadfastly and earnestly for more than twenty years. The only assurance for the people of any state that their physicians will be competent is a single standard of fundamental education for those who propose to treat the sick, and a single, nonpolitical examining board in each state to make sure that such persons meet the standard.—*Jour. A. M. A.*, Dec. 8, 1923.

NEW EXPERIMENTS ON REJUVENATION

The Journal has commented on the experiments of Steinach and others in the rejuvena-

tion of animals presumed to follow ligation of the vas. Recently Macht and Teagarden,¹ of Johns Hopkins University have performed similar operations on six rats, all more than a year old and showing definite signs of senescence. These were compared with two other animals used as controls. Fourteen additional rats were studied by special methods involving the use of animals operated on and adequate controls. The details of the method leave no doubt as to the scientific character of the experiments. After ligation, a number of the rats showed distinct improvement in general appearance and behavior. They were more active, and several developed a new coat of fur. These changes persisted only for several weeks, however, and the animals gradually relapsed into their usual senile state. Also distinct improvement in muscular co-ordination and muscular efficiency of the animals was noted, but this was temporary, lasting only a few weeks. It is the belief of the observers that all the changes noted seemed to have been the results of the operation; they assert, nevertheless, that this cannot be said positively without numerous additional experiments. This work would seem to confirm the impression now prevailing that the various rejuvenation experiments constitute at best only a temporary stimulus, and that the inevitable result is relapse, if not, perhaps, a shortening of life because of additional burdens thrown on a senescent organization.—*Jour. A. M. A.*, Nov. 24, 1923.

¹ Macht, D. I., and Teagarden, E. J., Jr.: Rejuvenation Experiments with Vas Ligation in Rats, *J. Urol.* 10: 407 (Nov.) 1923.

THE ETIOLOGY OF IRITIS

The infections found by Ernest E. Irons and E. V. L. Brown, Chicago (*Journal A. M. A.*, Nov. 24, 1923), in two hundred cases of iritis were as follows: syphilis, alone, 12 cases; with other infections, 26 cases; gonococcal infection, 10 cases; tuberculosis, 8 cases; dental infection, 27 cases; tonsillar infection, 53 cases; sinus infection, 4 cases; genito-urinary, nonvenereal, 6 cases; other infections, 3 cases; no infection found, 3 cases; combined infections, 41 cases; and undetermined, 7 cases.

STUDIES ON ISO-AGGLUTININS IN THE BLOOD OF THE NEW-BORN

Bruno de Biasi, New York (Journal A. M. A., Nov. 24, 1923), asserts that mothers may act as donors for their new-born infants without compatibility tests for agglutination and hemolysis. If tests are contemplated, the cross-agglutination test should be the one of choice so as to prevent the rejection of the mother donor in case she is found to belong to an incompatible group. Proof is given that the corpuscles of the new-born infants, have their quota of receptors. This is shown by the fact that in all of the 100 cases, the new-born babies have been grouped successfully according to the Moss classification. Successful transfusions done at Harlem Hospital, using mothers who, when grouped, were found to belong to groups incompatible with those of their respective new-born infants, demonstrated practically that mothers may be used with impunity without any danger whatsoever.

TRAUMATIC RUPTURE OF THE PERICARDIUM WITH RESULTING DEXTROCARDIA OF THE DIAPHRAGM AND LIVER

J. F. Doughty, Chicago (Journal A. M. A., Nov. 24, 1923) reports the case of a woman who was knocked down by an automobile. Orthopnea was present. The cardiac pulsation was not visible on the left side, but the apical beat was observed in the sixth right interspace 4 cm. to the right of the midsternal line. The left border of the heart, determined by percussion, was 2 cm. to the left of the midsternal line, and the right border, 4 cm. There was a rough systolic murmur over the apex. The pulse ranged around 120. In the sitting posture, the blood pressure was 134 systolic, and 84 diastolic. Expansion of the left thorax was limited. The diaphragm was 3 cm. higher on the left than on the right, and the excursion was 3 cm. in contrast to 6 cm. of the right side. There was a

moderate degree of abdominal distention. Tenderness was generalized, but there was no rigidity. No organs were palpable. Postmortem examination revealed a linear tear of the right side of the pericardium through which the heart protruded into the right pleural cavity.

ACIDIFIED WHOLE MILK AS A ROUTINE INFANT FOOD

It is emphasized by W. McKim Marriott and L. T. Davidson, St. Louis (Journal A. M. A., Dec. 15, 1923), that aside from any theoretical considerations involved, the only real test of the value of any method of infant feeding is the behavior of the infant receiving the food. During the last two years, approximately 90 per cent. of the infants in the wards of the St. Louis Children's Hospital have been fed on undiluted whole lactic acid milk to which corn syrup has been added. Of the 142 infants whose records were analyzed by the authors seventy-eight, or 55 per cent., were suffering from infections during the period of observation. These infections included otitis media, fifty-three; pneumonia, twenty; pyelitis, thirty-eight; meningitis, three; pulmonary tuberculosis, two; bacillary dysentery, ten, and osteomyelitis, two. Included in the series were also cases of congenital syphilis, pyloric stenosis, congenital malformation of the heart, and spina bifida; in short, the usual run of cases seen in the infant ward of any large hospital. A large proportion of the infants were much underweight. The ages of the infants varied from 2 days to 1 year. Six premature infants were included in the series. More than half of the infants were under 3 months of age. The number of days the infants were on the formulas varied from seven to 120. The average was twenty-two days. The average number of calories fed was 135 per kilogram of body weight (70 calories a pound). Seventeen of the infants received more than 200 calories per kilogram of body weight (90 calo-

ries a pound). For the entire group, the average daily gain in weight was 28 gm. (9/10 ounce). The infants in the series rarely developed diarrhea or vomiting. None died as the result of gastro-intestinal disturbances attributable to overfeeding. Most striking of all has been the fact that the mortality among athreptic infants in the hospital has fallen from 78 per cent. in 1919 to 26 per cent. during the past year. The method has also been extensively used in a number of the municipal feeding clinics in the city of St. Louis and in the private practice of a rather large group of pediatricians. Certainly, more than 1,000 infants in St. Louis have been fed on the formulas described, and the results are said to have been so generally satisfactory that a still wider use of the method is to be recommended.

WATCH OUT

"A man, like a watch, is known by his works," observed the epigram maker.

"And by the hours he keeps," added the wife.

"And by the spring in him," said the athlete.

"And by his being fast sometimes," remarked the reformer.

"And by the way his hands go up," put in the pugilist.

"And by his not always going when we want him to," said the girl who'd been robbed of her sleep.

"And by the case he has and the way he is run down," said the doctor.—Hygeia.

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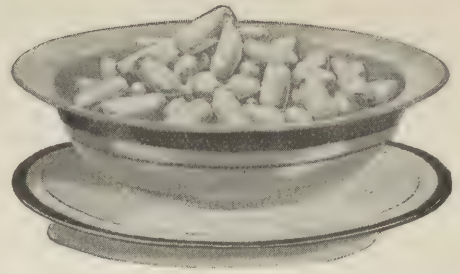
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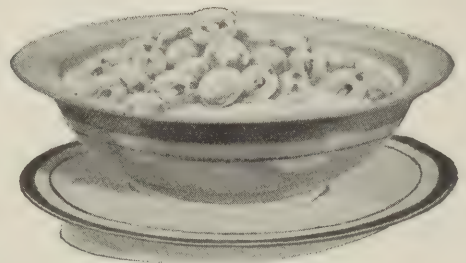
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SARCOMA OF BACK, WITH REPORT OF THREE CASES*

B. H. Wagnon, M. D.
Atlanta, Ga.

I am bringing this subject to your attention for three reasons:

(1) That these tumors occurred in the same positions and from the same origin, namely, between the shoulders and from rhomboid fascia.

(2) That they were not malignant to start with but had been removed for ordinary lipomas.

(3) That they occur in persons of widely different ages and have produced no metastases although they recurred rapidly after each removal.

It is not surprising to find these tumors of spindle cell type, they are very common, of wide-spread occurrence, develop chiefly in subcutaneous or submucous tissues, fascia muscles and peritoneum, etc., and according to "Ewing," they represent the purest form of fibroblastic neoplasm.

As a rule such a tumor is of low grade malignancy and I have no doubt that the first occurrence is simple lipoma.

These tumors usually occur singly although there are numerous reported cases of multiple growths. Their form is rounded or lobulated and edges not sharply marked. In the fibrous small cell tumors, they are very hard except in the large cell growths, where they are softer and more elastic.

Of the specific cause of sarcoma little is definitely known. These tumors demonstrate great proliferative capacity of mesoblastic cells released from the restraints to growth.

According to Ewing, "This capacity may reasonably be estimated as even greater than with most epithelial tissues. It is commonly assumed that normal adult cells are incapable of such great proliferation as occurs in sarcoma, and the further assumption is then necessitated that sarcomas as a rule grow from isolated, superfluous or embryonal cell groups. Increasing observations of early sarcomas of inflammatory origin favor the view that sarcomas often arise from previously normal adult cells."

To quote from Ewing again, "Many sarcomas show such marked histological resemblance to inflammatory processes that pathologists have long been inclined to accept in a certain sense the inflammatory or even the parasitic origin of certain sarcomas."

Syphilis and tuberculosis are the most prominent infections which lead to sarcoma.

Case No. 1, H. C. A., colored, male, age 29 years.

At two years old fell from bed, striking spool of thread, making bruised spot between shoulders that remained faintly through seven years but gave his parents no concern. At age of eight years, noticed small lump where this blue spot had been, about size of hen-egg; consulted family doctor who advised operation which was performed in ninth year. Diagnosis of lipoma was made, with no pathological examination. The scar remained unchanged through ten years.

At age of nineteen years, he noticed small nodule appearing at lower end of scar, which grew rapidly and in one year reached the size of an orange. He consulted his family doctor again who advised another operation, which was done. The wound was large and healed by granulation; growth was diagnosed

*Read before the Medical Association of Georgia, May 2-4, 1923, Savannah, Ga.

ed as lipoma. No pathological examination was made.

Three years later at age of twenty-two another recurrence of the growth occurred, and at the end of a year it had attained the size of an orange. He consulted a doctor in Newnan, Ga., who diagnosed the growth as lipoma, and who, with the assistance of another doctor of Newnan, Ga., removed the growth and after removal made a diagnosis of sarcoma with no pathological examination.

Two years later he came to me with still another recurrence, explained his history and numerous operations. I made the diagnosis of sarcoma and removed the growth; pathological examination proved to be sarcoma of the large spindle cell variety. I operated in June and it was March before healing was complete, due to the wide dissection that I made.

In July 1921 the growth had recurred and was of immense size, weighing thirty-eight ozs. after removal. Pathological examination; large spindle cell sarcoma. I did a wide dissection, sacrificed a great deal of tissue, and referred him to Dr. John S. Derr for X-ray treatments, who gave him massive doses of X-ray, five treatments of ten minutes each with intervals of five minutes between, each exposure overlapping the other, covering the entire wound.

During first week of X-ray treatments, he felt no effect. After which, a violent itching and burning set up around the wound which was treated with zinc oxide to allay the itching and burning. After six weeks, the burns were healed so he went back to Dr. Derr for further treatment and was given two treatments of ten minutes each which left no signs of discomfort.

The healed burnt surface remains the same after one year and nine months duration. Healing in center of wound has been slow and is not entirely well yet although there is no apparent signs of recurrence of the growth.

The most striking characteristics of the growths from first to last are: absence of

pain; rapidity of growth; absence of reasons for recurrence as there were no bruises, licks or inflammations; negative to syphilis and to tuberculosis.

Case No. 2, E. K., colored, female, age 66 years, laundress by occupation.

Growth first appeared between shoulders, small, soft, round nodule, about eight years ago. I made a diagnosis of lipoma and removed the growth which was then about the size of a goose-egg. Pathological examination was sarcoma, small spindle cell variety.

The wound healed perfectly within a few days but growth recurred again in one year. It was irregular in shape with multiple nodules forming one continuous mass. I did a second operation on January 26, 1921. Wound healed in a short time; pathological examination showed spindle cell sarcoma.

In little over a year, it again recurred and I operated for the third time on April 4, 1923. Made wide dissection, removing the fascia, left the wound open to heal by granulation and the wound is now in process of healing.

There are no striking characteristics in this case but what is exhibited in practically all cases of small spindle cell sarcomas, namely: lack of metastasis; low grade malignancy; firmness of tumor; slowness of necrosis or ulceration; negative to syphilis and to tuberculosis.

Case No. 3, M. D., colored, female, age 40 years.

Growth first appeared two years ago. In April 1922, I removed the growth from between the shoulders, it being about the size of an orange, was oval, soft and nonvascular. The pathological examination was lipoma.

She returned in February 1923 with a recurrence of the growth in same scar between the shoulders, the growth being nodular and about the size of a goose-egg. I removed the growth for the second time, it was nonvascular, firm and appeared to be muscle tissue. Pathological examination: small spindle cell sarcoma. Negative to syphilis and to tuberculosis.

HEAD INJURIES***Chas. E. Dowman, M.D.**

Assistant Professor of Surgery, in charge of
Neurologic Surgery, Emory University, Atlanta, Ga.

It is important to consider fractures of the skull and traumatic lesions of the brain at the same time. It has been customary in the past to emphasize the fracture in traumatic head cases rather than the degree of damage done to the intracranial structures. This is putting the cart before the horse as it were. It is far more important to think of head injuries in terms of brain damage, although it is of interest and importance to know whether or not the bone encasing the brain is broken and if so the type and degree of fracture. The treatment depends, however, principally upon the degree of intracranial injury rather than upon the location and character of the fracture.

The skull is an irregular sphere. It encases the brain with its coverings and fluid filled cavities. The intracranial structures lie snugly in its bony covering. Just as a foot-ball when kicked changes its shape momentarily, so the skull will change its shape momentarily as the result of some sudden impact. During this momentary alteration in the shape of the skull, the intracranial structures are simultaneously affected. Nature has provided certain cavities and fluid accumulations within the cranium which act as a waterbed for the delicate and highly organized brain, and this provision of nature permits within certain limits the brain and associated structures to escape injury when the skull receives blows of the usual limited intensity. Should, however, the force of the impact exceed the so-called physiological limits, the intracranial structures will be squeezed as it were beyond the limit of normal movement with resulting lesions of varying degrees of severity and extent. These lesions may vary from scattered microscopic

ruptures of nerve fibres to gross lacerations, torn blood vessels, ruptured membranes, etc. The character of the injury modifies, of course, the pathological findings. For example, a force of great mass and moderate velocity may cause scattered areas of contusion whereas a force of small mass and great velocity such as may be produced by a hammer, may cause a circumscribed depressed fracture with localized contusion of that part of the brain lying directly under the fractured area; or if the rending quality of the force is sufficient actual brain lacerations in remote portions of the brain may result. The most common sites of such gross lacerations are usually the under surfaces of the frontal lobes and the tips of the temporal lobes. Hemorrhages may result from ruptured meningeal vessels, from the torn vessels of the pia-arachnoid, or from ruptured subcortical vessels.

Should the intracranial hemorrhage be extensive there may result an immediate increase in intracranial pressure due to the blood *per se*. On the other hand, where there is contusion, either general or local, an edema gradually ensues which causes likewise increased intracranial pressure and circulatory compression. Cannon called attention to the fact that tissues deprived of oxygen will take up fluid and swell. With the rupture of many vessels of varying sizes and with traumatic thrombosis in others, a considerable bulk of brain tissue may be deprived of oxygen, with the result that extensive edema may result.

Acute cerebral compression, whether due to the hematoma of a ruptured middle meningeal vessel, intradural hemorrhage, or fluid accumulation gives rise to certain physiological responses within limits, which may be manifested by certain symptoms and findings. A clear understanding of the effects of cerebral compression is therefore necessary in order to properly interpret and treat cranial injuries.

There are three vital centers situated within the medulla oblongata, namely, the vasomotor, the respiratory and the cardio-inhibitory centers. Experimentally these centers

*This is one of a series of lectures on Neurological Surgery delivered to the senior students, Medical Department of Emory University.

compensate in a classical manner to increased intracranial pressure up to certain limits. Clinically the reaction of these centers is not always as prompt as in experimental studies. With this difference in mind, however, it is still possible to explain satisfactorily certain reactions to compressing forces.

There are four stages of cerebral compression: (1) When the compressing agent is compensated for by the displacement of some of the cerebro-spinal fluid. It has been shown experimentally that about 6 per cent of the space occupied by the fluid can be encroached upon without producing symptoms. Beyond this, even though the pressure is relatively mild, there will result headache and slight mental dullness. (2) As the intracranial pressure becomes more marked some of the cerebral veins become blanched, and there develop such symptoms as increased headache, restlessness, irritability, vertigo and excitement. The focal manifestations depend upon whether or not there is local brain involvement. (3) The third stage is that in which the intracranial pressure becomes great enough to interfere with medullary circulation. Normally the blood pressure is greater than the intracranial pressure. If the intracranial pressure increases to a point equal to the blood pressure, there will result a cessation of circulation through the brain. This deprivation of proper blood supply to the brain results in a temporary stimulation of vaso-motor centers. The blood pressure immediately increases to a point higher than the intracranial pressure, thus causing the blood to again circulate through the brain. If the cerebral compression continues, a point will again be reached when the brain becomes anemic. The medullary centers are again stimulated and the blood pressure again goes up to a point higher than the intracranial pressure. This physiological response of the medullary centers may continue until the centers become exhausted. It is thus seen that nature has provided a compensating mechanism which will keep life intact even in the presence of greatly increased intracranial

pressure. Such a period is spoken of as the period of medullary compensation. During this stage of medullary compensation there will be an increased blood pressure, a slow pulse (cardio-inhibitory stimulation), and deep stertorous respirations. (4) If the intracranial pressure continues to increase there will eventually come a time when the medullary centers will fail to respond,—the so-called period of medullary exhaustion. During this stage the blood pressure falls, the pulse rate increases, and death takes place. Relief of the pressure through operation or other measures after the onset of the period of medullary exhaustion is rarely of avail.

The symptoms of brain injury depend naturally upon the type and gravity of the lesion. Should there be a fracture of the skull, the location, and extent and character of the fracture as disclosed by the X-Ray may give one a clue as to the location of the greatest brain damage. A detailed neurological examination, though often incomplete on account of the patient's inability to cooperate, will frequently disclose findings which will point clearly to the area of greatest damage. For example, the presence of a unilateral facial paralysis might have great localizing significance; the presence of unilateral spasticity of the extremities, a unilateral Babinski, etc., are findings of great value as far as locating the area of greatest damage is concerned. Such findings can only be properly interpreted by falling back upon our knowledge of the anatomy and physiology of the nervous system.

There are certain general symptoms in brain injuries which may aid in the proper interpretation as to the character of the injury, the prognosis, and the proper treatment to be instituted. These will be discussed briefly under the following headings: temperature, pulse rate, blood pressure, respiration, pupils, eyegrounds, and spinal puncture.

TEMPERATURE. During the first few hours following a severe head injury the temperature may be subnormal. It should be remembered that there is frequently during this time a condition of traumatic shock.

This subnormal temperature is frequently followed by a rise in the temperature above normal. It would appear that the factor which determines the rise of temperature is the degree and location of brain contusion rather than intracranial hemorrhage. In this connection, however, Bagley in a recent contribution (*Archives of Surgery*. Vol. 7, No. 2, pp. 237), reports cases of head injury which terminated fatally, in which there was a marked rise in temperature a few minutes after the accident. This hyperpyrexia continued throughout the course and generally rose to 106 degrees and 107 degrees up to the time of death. These cases likewise had a corresponding increase in the pulse and respiratory rate. The lesions found at necropsy were limited to the structures anatomically related to the vein of Galen and its tributaries and consisted of extravasations of blood in the corpus collosum, optic thalamus, and the region of the internal capsule. In general the height of the temperature is dependent upon the extent and gravity of the brain contusion and when reaching as high as 105 degrees is only rarely followed by recovery.

PULSE RATE. During the period of shock immediately following the injury the pulse rate may be increased. Should reaction take place the pulse rate will come down and may descend as low as fifty per minute. Should this abnormal slowing of the pulse rate be accompanied by increased blood pressure it is safe to assume that it is caused by a definite increased intracranial pressure. In the absence of other signs of increased intracranial pressure, however, one is hardly justified in concluding that there is a material increase in intracranial pressure because the pulse rate is low, as not infrequently a slow pulse is found in minor degrees of brain injury. A slow pulse, however, indicates that close observation should be made as it may be of vital significance. On the other hand a persistently rapid pulse rate is of grave prognostic significance and when accompanied by hyperpyrexia indi-

cates as a rule a fatal termination. In the cases in which there is a moderate increase in temperature there is no corresponding rise in the pulse rate. The pulse of cerebral compression is slow and of full volume and increased tension.

BLOOD PRESSURE. Experimentally it has been shown that as the result of increased intracranial pressure there is a compensatory rise in blood pressure. This condition may likewise prevail in clinical experience but not always as there are not infrequently contusions of such a grave nature as to materially interfere with the physiological response. Clinically, therefore, absence of increased blood pressure is not incompatible with increased cerebral tension. When on the other hand there is a gradually increasing blood pressure with a corresponding decrease in the pulse rate it is safe to conclude that there is increasing intracranial pressure which may demand immediate surgical intervention. Immediately after the injury during the period of shock the blood pressure may be below normal. When the blood pressure continues to fall, especially when the pulse rate is rising, the prognosis is grave no matter what type of treatment is instituted.

RESPIRATION. During the period of shock immediately following the injury the respiration may be very shallow. As reaction takes place the breathing becomes deeper and, as increased intracranial pressure occurs, changes into a heavy stertorous character. As the pressure increases the respiratory rate may be slowed and the rhythm may become irregular. At times the respiration may assume the Cheyne-Stokes type. Just before death the breathing may again become shallow. Where the increased pressure is exerted directly on the medulla, as in the case of hemorrhage into the posterior fossa, the respiratory rate may go down to two to four per minute and there may occur simultaneously a marked cyanosis and pulmonary edema. After complete respiratory failure the heart may continue to beat for some time.

PUPILS. The sympathetic fibres which enter the cranial cavity with the internal carotid artery convey the fibres which have to do with dilatation of the pupils. The area of entrance of these fibres into the cranial cavity is that which is not infrequently the site of fracture. Injury to these fibres therefore may stimulate or paralyze, thereby causing either dilatation or constriction of the pupil on the side of the injury. The third cranial nerve which has to do with pupillary contraction is rarely injured in its peripheral course. The third nucleus or its cerebral connections is subject to injury by contusion just as any other area of the brain. It is thus seen that any type of pupillary changes may be met with in injuries to the head. It has been noted that in about one-half of the cases when there are pupillary changes the larger pupil is on the side of greatest intracranial pressure. It is also an established fact that dilated and non-reacting pupils indicate a grave prognosis. It must be kept in mind however that the significance of pupillary changes depends largely upon other signs and symptoms which may be present.

EYE GROUNDS. A routine ophthalmoscopic examination should always be done in cases of head injury. Although the information obtained may not be as valuable as in cases of chronic increased intracranial pressure, there are certain changes in the eye grounds which may take place in acute cases, that are of definite value. There are seldom any noticeable changes seen within six hours following the injury. After this time a definite dilatation of the retinal veins may be noted where the intracranial pressure is increased. This finding may be accompanied by a hyperemia of the discs and at times a beginning edema of the nasal halves of the discs. After twenty-four hours there may occur a very definite choking of the discs provided the intracranial pressure is markedly increased, and if present this sign may indicate the type of treatment which should be given.

SPINAL PUNCTURE. A routine lumbar puncture is a procedure of great value in all

cases of head injury. In the first place it is important to estimate the spinal fluid pressure as this is a valuable index of the degree of intracranial pressure. Intradural hemorrhage likewise can be diagnosed when the spinal fluid contains blood. When present it indicates as a rule that brain contusions have occurred. A clear fluid removed soon after the injury does not necessarily rule out hemorrhage, as a second puncture may reveal a yellowish or bloody fluid. When the fluid is yellow and does not coagulate on cooling the yellow color is due as a rule to the hematin which has come from the red blood corpuscles and is due to an intracranial hemorrhage of several days standing. The normal spinal fluid pressure is about nine (9) mm. of mercury. When the pressure is above this reading it indicates that the intracranial pressure is increased. A spinal fluid pressure of 20 to 30 mm. of Hg. is not uncommon in serious head injuries. It is now generally recognized that it is dangerous to make a lumbar puncture in cases of chronic increased intracranial pressure due to brain tumor, on account of the fact that the relief of pressure below may cause a herniation of the brain stem down into the foramen Magnum with consequent disturbance of the respiratory centers. This danger does not exist in acute traumatic cases as a rule, so that a carefully performed lumbar puncture in these cases is not contraindicated.

Classification of Cases

With the above considerations in mind cases of head injury can usually be classified as follows:—

A. Massive brain injury, with evidence of rapid exhaustion of the medullary centers, and death within one to several hours after admission.

B. Definite evidence of middle meningeal hemorrhage.

C. Simple or compound depressed fracture with localized brain contusion, with or without indriven bone fragments.

D. Classic manifestations of rapidly increasing intracranial pressure which are well within the period of medullary compensation.

E. Definite evidence of brain injury exhibiting no classical findings of acutely increasing intracranial pressure, yet of the type that experience has shown is liable to develop gradually increased intracranial pressure due to fluid accumulation.

F. So-called "concussion" with no evidence of gross brain damage.

G. Depressed fracture of a mild degree, giving rise to no symptoms whatsoever.

H. Scalp lacerations, without damage to the underlying structures.

Treatment

Before determining the type of treatment it is necessary to make a careful examination, including X-Ray studies in order to determine if possible to what particular group the case belongs. In many cases the eventual decision may necessarily be delayed until the patient has been observed for several hours. As a rule those cases falling in groups A, B, C, or H can be readily diagnosed and a prompt decision made as to what had best be done. From two to six hours of observation may be necessary before the other classes of cases can be properly estimated.

CLASS A. The patients belonging to this class have sustained a fall or blow of such severity as to cause massive brain injury. As a general rule they are profoundly unconscious, the pupils are fixed and dilated, there is heavy stertorous breathing which rapidly becomes irregular, the pulse may be either very slow and irregular or very rapid and almost imperceptible, the blood pressure though possibly high soon after the accident may descend rapidly, and there may be evidence of a rapidly occurring edema of the lungs. The brain is usually grossly lacerated and there is extensive intradural hemorrhage. All treatment in such cases is without value and death is inevitable within a few hours.

CLASS B. The history in cases of rupture of the middle meningeal artery is usually typical. There is a history of a blow or fall on the head, which may or may not produce a transient and temporary unconsciousness. After a lucid interval the patient gradually loses consciousness and the examination reveals a unilateral spastic paralysis with exaggerated deep reflexes and often absent superficial reflexes on the side opposite the lesion. The blood pressure progressively increases and the pulse rate descends. Such a picture indicates that there is something within the cranial cavity which is causing a rapidly increasing intracranial pressure, in spite of the fact that at the time of the accident the patient was not rendered profoundly unconscious. Such a lesion is usually a rapidly increasing extradural clot due to a rupture of the middle meningeal artery. As this artery enters the skull through the foramen spinosum and courses upward in the dura and lies so closely approximated to the inner surface of the skull as to cause definite grooves in the bone, one can readily understand why the artery may be torn when there is produced a fracture of the middle cranial fossa. The ruptured artery may be on the side opposite to that on which the blow was received, a true illustration of the so-called contre-coup fracture. This is mentioned so as to emphasize the importance of making a neurological examination and not depending entirely on the superficial evidence of injury as otherwise the operation which is indicated may be performed on the wrong side of the skull. Cases of rupture of the middle meningeal artery should be operated upon as soon as possible. A straight-line incision is made in the temporal region on the side of the lesion, the direction of the incision corresponding to the line of the fibres of the temporal muscle. The temporal muscle is separated in the direction of its fibres and retracted to either side. The skull is entered with a perforator and burr, disclosing to view the large epidural clot. As soon as the diagnosis has been thus confirmed one of two courses may be followed. If the operator is an experienced brain sur-

geon the opening in the skull may be enlarged with a rongeur, the clot removed and the bleeding vessel ligated. If the rupture has occurred near the foramen spinosum this opening can be plugged with bone wax and the artery occluded in this way. If on the other hand the operator does not care to take a chance on attempting to control the bleeding in this way, before the clot is removed the external carotid artery should be ligated through a small neck incision along the inner border of the upper portion of the sterno-cleido-mastoid muscle. By adopting this measure much time will be saved and continued troublesome hemorrhage from the torn meningeal artery prevented, as the intracranial ligation of the artery under such circumstances is not always an easy matter. After the external carotid artery has been ligated, the opening in the skull can be safely enlarged for a diameter of from five to seven c.m. and the large epidural clot removed. As a further precaution against the possible occurrence of increased intracranial pressure, the dura should be opened by means of crucial incisions. The overlying structures are now carefully closed with several layers of interrupted fine silk sutures.

CLASS C. In these cases the best results are obtained if the technic of debridement used in the operative handling of war injuries is employed. The edges of the lacerated scalp are cut away; the underlying bone is exposed; all bone fragments are carefully removed and placed in sterile salt solution; a soft rubber catheter on the end of which is attached a Carrel syringe with bulb is inserted into the area of contused brain and by means of gentle suction all contused brain and blood clots are carefully removed. Should there be deeply indriven bone fragments they can be detected with the catheter and removed with forceps. Healthy brain tissue will not come away if gentle suction is used. A conical defect remains after the contused brain has been removed. This area should be filled with salt solution and the opening in the overlying dura closed if possible. The bone defect is now filled with

such of the removed bone fragments as are suitable and the scalp closed with interrupted fine silk, galea and skin sutures. If complete hemostasis has not been effected a small rubber tissue drain may be inserted between two sutures. Such a drain, however, should be removed at the end of twenty-four hours.

CLASS D. The cases which belong to this class are usually rendered unconscious at the time of the accident and give evidence of developing rapidly increasing intracranial pressure due presumably to intradural hemorrhage. Instead of giving evidence of rapid exhaustion of the medullary centers as in cases belonging to Class A, repeated blood pressure readings show a gradually rising blood pressure. These readings should be made every 15 minutes until the case can be properly classified. The pulse rate descends and the spinal fluid pressure is definitely increased. These cases usually have more or less laceration of the temporal lobes, with accumulation of blood intradurally. The choice of treatment is still a source of much argument among neurological surgeons. The generally accepted treatment, however, consists of a subtemporal decompression with or without temporary drainage by means of a small wick of rubber tissue placed under the temporal lobe and escaping through the lower angle of the wound. Should the intracranial pressure be extensive a bilateral subtemporal decompression should be done. The technic of performing these operations is identical with that described in the treatment of rupture of the middle meningeal artery, omitting of course the ligation of the external carotid artery.

CLASS E. Patients belonging to this class are usually brought into the hospital in a semiconscious condition. The blood pressure as a rule is somewhat higher than normal but does not increase as in Class D. The pulse is usually about normal. The roentgen ray may reveal linear fractures of varying degrees, and the spinal fluid is often blood tinged. After several hours of observation one feels safe in assuming that there has

been definite gross brain damage, although there is no rapidly increasing intracranial pressure. Such cases unless treated properly are liable, within a few days, to show definite signs of increased intracranial pressure, not infrequently of such an alarming character as to call for energetic treatment. If these patients are operated upon when symptoms of increased intracranial pressure develop, there is usually found a large collection of blood tinged fluid under the dura, but apparently none in the subarachnoid space. Why this fluid should be between the dura and the arachnoid is an interesting question. A plausible explanation is that, at the time of injury, the arachnoid is ruptured in different areas so that the cerebrospinal fluid does not remain in the subarachnoid space, from which it would probably be absorbed, but escapes directly under the dura, where cerebrospinal fluid absorption is impossible. Neither can this subdural fluid be removed by lumbar puncture, as the lumbar puncture needle must enter the spinal subarachnoid space before fluid can be obtained. When this fluid is allowed to escape at operation, the brain mass instead of being edematous and swollen, seems at times to be actually decreased in volume.

It has been our experience that cases belonging to this class can be put on a type of treatment which will prevent the occurrence of increased intracranial pressure by fluid accumulation.

Weed and McKibben (*Am. J. Phy.* 48: 512—1919) have shown experimentally that the pressure of the cerebro-spinal fluid and the bulk of the brain can be reduced by the intravenous injection of hypertonic salt solution. Folley and Putnam (*Am. J. Phy.* 53: 464—1920) demonstrated experimentally that hypertonic magnesium sulphate solution given by mouth likewise reduces cerebrospinal fluid and brain bulk, although the action is much slower than when saturated sodium chlorid solution is given intravenously.

In an effort to prevent the accumulation of fluid, with the resulting symptoms of in-

creased intracranial pressure in this class of cases, the following treatment is used: One-half ounce of saturated solution of magnesium sulphate is given every two hours for the first 24 to 48 hours. (The dose is decreased in proper proportion in children). Thereafter the time of administration is lengthened to every three hours for a day or two, and then gradually decreased according to the condition of the patient. After from seven to ten days, the drug can usually be withdrawn entirely. In addition the patient is given a hypertonic diet and no plain water is allowed. By hypertonic diet is meant well sweetened lemon or orangeades, well salted broths, etc. If at any time evidences of increased pressure develop in spite of the magnesium sulphate, the treatment is supplemented by the intravenous injection of 50 c.c. of 30 per cent sodium chlorid solution once or twice daily. (This solution should not be given faster than 2 c.c. per minute). Since this line of treatment has been used in the Grady Hospital (Emory Division) no case belonging to Class E has come to late operation and only one case out of a rather large series has died. This patient died ten days after the accident of a pulmonary edema.

CLASS F. To this class of cases belong those patients who have a history of a slight blow on the head followed by temporary unconsciousness. After a few hours these patients become mentally clear, and careful neurological examination fails to reveal any evidence of gross brain damage. The spinal fluid is clear, and there is no particular alteration of the pulse, blood pressure, or respiration. Such cases should be kept under observation at least three days in order to be sure of the diagnosis. Rest in bed and free purgation with salines is the treatment indicated. If there is such a thing as real concussion of the brain, I feel that this particular class of cases should be the type referred to when such a diagnosis is made. There is an unfortunate tendency for doctors to misuse the term "concussion of the brain." Any case that has more than a transient unconsciousness following a blow

on the head probably has definite brain damage. If there is any evidence whatsoever of such brain damage the term concussion should not be used.

CLASS G. Not infrequently patients may have simple depressed fracture of the skull with no symptoms whatsoever other than the evidence of local trauma. Such patients should be operated upon as a matter of routine. In the first place the fracture may cause a certain amount of local pressure on the underlying brain, a condition which should be corrected. In the second place, there may be a certain amount of localized brain contusion underlying such fractures. After the depressed bone has been removed, a small opening should be made in the dura in order to permit of an inspection of the brain. Should blood clots or brain contusion be present a simple debridement by means of catheter suction should be done, followed by closure of the dura, replacement of bone fragments, and closure of the scalp with fine galea and skin sutures.

CLASS H. All scalp lacerations should be treated by trimming away the soiled edges, retraction of the wound so as to thoroughly inspect the underlying skull, and careful suturing of the wound by means of fine interrupted silk sutures. These wounds, when so treated invariably heal by primary intention. Without examination of the skull one is liable to overlook a fracture which in turn may have caused contusion of the brain. Unless such a condition be properly handled and the wound carefully closed a meningitis may occur through direct infection.

COMMON RENAL INFECTIONS

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In the course of this paper "The infections of the kidney," caused by the colon bacilli and allied bacteria, I will endeavor to show the frequency of the infection, and the large percentage of cases showing the colon bacilli present as the predominating bacteria.

These infections are of almost every day occurrence and many are not so familiar with them and if familiar, are not always aware of the strides that have been made in the diagnosis and treatment.

We need not expect every patient coming for treatment to present every symptom and sign of his complaint, but will only present a few symptoms that point to the cause of his functional disorder, therefore it is important that we remember the clinical picture that we get from the impressions made by our first meeting with the patient.

I will classify the causes as predisposing and exciting. Predisposing causes are more frequent in female than males, and are: throat infections, bowel infections, colitis, traumatism, operation in septic fields, constipation, gall bladder infections, gastric ulcer, abscess in any part of the body, overexertion both mental and physical, enlarged prostate, stone in ureter, ureteral stricture, ovarian cyst, fibroids of the uterus, pregnancy, wounds, scarlet fever, in fact any condition which lowers the resistance of the blood and tissues to bacterial invasion.

The exciting cause of pyelo-nephritis is always a bacterium. Of 140 cases analyzed by Kidd of London, 117 showed the colon bacilli, strept. 9, staph. 7, gonococcus 2, proteus 2, paratyphoid 1, bacillus asiaticus 1, para Malta fever 1.

The exciting cause being bacteria, one of the first symptoms to manifest itself is a rigor, which shows that it is a blood born infection in a large majority of instances (if not all).

I will designate the kidneys, lymph glands, joints, muscles and fascia as dust bins of the body, of which the kidneys and lymph glands are the most active; and when there is a bacteremia, nature begins the process of eliminating this foreign matter from the blood by filtering the bacteria through these dust bins, and the kidneys are often damaged by this process and the bacteria are found in the blood just before and during the rigor.

Having arrived at the cause let us turn for awhile and discuss the signs and symptoms which are manifested by this bacterial invasion.

In some cases, particularly in the fulminating and hyperacute the onset is sudden and the patient appears extremely ill.

The onset is usually gradual with general malaise lasting from a few hours to a few weeks or even months before any evidence of a localized urinary infection; and the clinical evidence that these infections are primary blood infections arising from some focus somewhere in the body and they attack the kidney secondarily as they are being filtered out of the blood.

Therefore the physician who is first called is often in doubt as to what is happening.

The chill, rigors, thirst, fever, vomiting, headache, and sweating will often lead him to believe that he is dealing with some specific fever.

The localized symptoms in the urinary tract come on in a few hours, renal pain and strangury are sometimes most intense.

The renal pain is in the region of the loin of the affected side, and may or may not radiate along the course of the ureter or may be diffuse over the entire side affected.

If both kidneys are infected the pain will then be on both sides. Strangury or the vesical pain is nearly always a severe pain at the end of micturition at the terminal end of the urethra, and lasts for a few minutes and associated with a greatly increased frequency to urinate, and often is associated with a few drops of blood at the extreme end of micturition. Let me emphasize this fact that strangury is more likely to be an evidence of an infected kidney than disease of the bladder.

Any one relying upon this symptom alone is most likely to diagnose pyelitis a case of cystitis. This has been proved by cystoscopic examination and the bladder found to be

quite healthy and the kidney unhealthy, and the strangury only ceases when the infection is cured either by pelvic lavage or nephrectomy.

Strangury combined with fever in women is nearly always due to pyelitis, in men it may be a deep urethritis. Pure cystitis is rarely ever accompanied with fever (because the bladder is designed as a reservoir, is poorly supplied with lymphatics to ensure that it shall not reabsorb water and equally therefore not poisonous.)

Increased frequency is a sign par excellence of a diseased kidney rather than a diseased bladder. In pyelitis urine is always acid.

Cloudy urine is due to the presence of pus or to deposits of uric acid or phosphatic crystals.

There is often a urethral discharge, and it is not uncommon to observe the onset of a spontaneous urethral discharge which does not contain gonococci, which is set up by infection of the kidney or prostate and which has nothing to do whatever with venereal disease. In this case the microscope will make the decision.

Diagnosis

This is made by the history of the case, often coming on after exposure to cold and in one who is overworked, had no vacation for long time, little or no exercise, and coming on very often after a company dinner.

There is a rigor with a rise in temperature, sometimes rising as high as 104 or 105, depending upon the kind and severity of infection, aching, pulse rapid and weak, skin cold and often covered with sweat, frequent micturition with pain, often passing the urine every five minutes.

Tenderness and pain over one or both kidneys with enlargement and guarded by rigid muscles. The urine is cloudy and often blood stained and shows blood, pus cells and bacteria, most often colon bacilli.

In the protracted cases the temperature is often up and then suddenly drops to re-

main for a few hours and again goes high.

The presence of pus cells in the urine is sufficient to warrant a diagnosis of infection of the kidney pelvis when the other symptoms are considered. If there is any doubt as to which kidney is involved, cystoscopy and catheterization of the ureters and a microscopical examination of the urine of each specimen finding pus cells will clear the diagnosis.

Differential Diagnosis

Stone in the kidney is most often excluded by the X-ray.

Hydronephrosis can most often be excluded by abdominal palpation, but in case of doubt the suspected hydronephrosis can be filled up with collargol or some metallic preparation and the X-ray picture will decide.

Pyonephrosis. Here the cystoscope will decide, for the moment it enters the bladder, the ureter is seen patent and drawn out with pus-like mass resembling chinese white squeezed out through the closed tube.

Perinephritic Abscess. This can be determined by slow onset, tumor like mass, absence of pus cells in urine and presence of leucocytosis.

From cystitis. The absence of fever, and the fact that cystitis is most often secondary to pyelitis.

Treatment

The treatment of pyelitis resolves itself into three phases: First, medicinal; second, pelvic lavage; and third, surgical; and I believe this is the proper order of procedure. The patient is of course confined to bed and should be kept as comfortable as possible, large quantities of water are given with alkalies, as citrate of potash, 60 grs. in glass of water every four hours, so as to literally wash out the patient's tissues freely, or better still, pot. citrate, 30 grs. pot. bicard. 10 grs. mag. carb. 30 grs., this is suspended in acacia and water and is better born by the stomach.

This alkaline treatment is kept up for several days, the urine being kept alkaline in reaction and if the invading organism is the colon B. there will be a reduction in temperature in from twenty-four to forty-eight hours.

The alkalies exert a poisonous effect upon this bacillus and relieves the acidosis which the colon B. produces.

After the temperature has been normal for a few days, change to urotropin 10 grs. in half a glass of water with 30 grs. acid sodium phosphate given every four hours. The more acid the urine at this stage, the more rapid the formation of formic acid (changed) which is the active antiseptic principle, which inhibits the growth of the colon bacilli and aids the body in dealing with the other natural defences.

This treatment is kept up for several months if necessary, although the trouble may clear up in a few weeks.

If this treatment fails to clear up the condition and the fever remains high, renal lavage should be done at once, the results being so striking that one is tempted to use this in preference to all others. If the case happens to be of the fulminating type, and the lavage does not relieve the condition then surgery should be resorted to without any further delay, and the kidney removed.

In chronic cases nothing will give as prompt relief as renal lavage. For this I prefer silver nitrate in one per cent solution in preference to any other preparation.

Lunosol in from 20 to 50 per cent solutions, mercurchrome one per cent, but nitrate of silver will give best results of any of the new preparations.

The diet should of course be bland and non-irritating, milk constituting the bulk of the diet. Milk toast, chicken broth, meat extracts and cereals may be allowed.

The patient's strength should be watched and from 30 to 80 grams protein allowed daily.

Closing

One thing I have purposely omitted in this paper and that is treatment of pyelitis of pregnancy. The average case of pyelitis of pregnancy occurring for first time will respond promptly by rest in bed, elevation of head and shoulders with forced fluids and large doses of urotropin. This is best given in 10 grains doses four times day, with 10 grains of sodium acid phosphate given either with the urotropin or midway between each dose, this as I have said before to render the urine strongly acid.

In the late months of pregnancy the elevation of the foot of the bed in the attempt to have the fetal head drop back from the pelvic brim, often brings great relief.

In undertaking the medical treatment we must always bear in mind that we are dealing with two lives and we must not continue this so long that we jeopardize the life of the fetus. If decided improvement does not occur in the course of a few days resort to catheterization of the ureters with pelvic lavage. If there is high fever and repeated chills it is best to resort to pelvic lavage at once. The results of this treatment are so striking that one is almost tempted to use this to the exclusion of all other methods. The temperature often drops from 104 to normal in twenty-four hours and remains normal until delivery, a fact that would indicate that there was some form of ureteral obstruction which was relieved by the passage of the catheter rather than that the infection had been overcome by one pelvic lavage. There is practically an immediate cessation of pain. In these cases a large catheter should always be used.

With careful technique there should be no danger to the mother.

EXAMINATION OF CHEST WITH SPECIAL REFERENCE TO DIAGNOSING TUBERCULOSIS.

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The great fight that is being waged and won against tuberculosis is due very largely to a more thorough study of the chest on the part of physicians, thereby enabling them to diagnose early tubercular lesions.

The fight must continue and if a decisive victory is to be had early diagnoses must be made in a greater percentage of cases than even now is being done. Several factors must enter in this early diagnosis one of the most important of which is a thorough and painstaking examination of the chest.

It is essential, in order to make a proper chest examination, to have all clothing removed down to the waist though in case of a female patient the breasts can be covered by a sheet placed around the chest but under the arms. One might just as well try to examine an abdomen with a corset on it as examine a chest with the clothing on.

Since we are interested primarily in the condition of the lungs it is, I believe, best to examine them first. After this the apex beat of the heart is located and the heart examined. If during the lung examination any pathology is found, especially in either base, then we can look to the heart in order to determine its position and condition. Cases of pleural effusion have been diagnosed as tuberculosis probably because it was not noticed that the apex beat was misplaced.

It is not my intention to describe in detail every step in a complete examination but to mention only the more important points.

Inspection of the chest is very often omitted by the examining physician but if it is properly carried out much valuable information may be obtained. It is necessary to have plenty of light which must fall equally on both sides of the chest, otherwise you may note conditions that do not really exist or fail to note those that do. A retraction of

one apex may indicate an old lesion which had undergone fibrosis but may now be active. This is not always true however for it has been shown that in a certain percentage of healthy individuals there is a retraction of one or the other apex. In early cases there will be very little difference in expansion of the two sides but if you look very carefully you may be able to see that the affected side will lag just a little as inspiration begins.

It is sometime possible to feel this lagging when you cannot see it. This is done by standing behind the patient and placing the hands over the clavicles, fingers anteriorly and thumb posteriorly. The hands should be well enough forward to allow the little finger to reach just below the clavicles. While in this position instruct the patient to take a deep breath and note if either side lags.

In percussion we very often fail to elicit anything very valuable but this is no excuse for omitting it. I believe the best results from this procedure are obtained only after the examiner has learned the free and easy movement of the wrist. The blow must be light and the pleximeter finger must at all times be closely applied to the chest wall. Very often it is possible to "feel" the dullness as well as hear it. In percussion one should always compare the note in corresponding areas. The width of each apex can be determined by percussing in the supra-clavicular spaces. It is well to mark the finding on each side for the sake of comparison.

It is important that the patient be placed in such a position that the examiner will experience no difficulty in making the examination. If this is not done the physician is much more likely to be lax in his examination.

When Laennec gave to the medical world the stethoscope he furnished us with a most valuable means of determining pulmonary pathology. One should not forget that a slight prolongation of the expiratory note at the right apex does not indicate pathol-

ogy for the reason that the trachea in this area is very near the apex. The one most important auscultatory finding is the rale but it should be remembered that rales in the chest do not always mean tuberculosis, not by any means. Neither is the extent of involvement determined solely by the number of rales present. Sometimes rales are heard only after improvement of the condition has taken place.

To my mind it makes little difference what name you give to the rales that may be present, it is knowing whether or not they are the type of rales usually present in a tubercular condition. The rales usually present in early tuberculosis are small, a little moist and sound much like the crushing of a few grapes. In the lung examination it is usually best, I think, to begin at the base and proceed toward the apex for the reason that you are most likely to find the diseased area at the apex or at least in the upper part of the lung and it is best to go from the normal to the pathological. One should go first over the entire chest and get an idea of the general situation, so to speak. The posterior chest is usually examined first and then the anterior chest. For the best results, while examining the back, the scapulae must be gotten out of the way as much as possible. To do this one may have the patient place his right hand on the tip of his left shoulder and his left hand on the tip of his right shoulder. Another way is to have the patient put the back of his hands on his hips and instruct him to pull the elbows well forward. This will keep the scapulae down and pull them well forward allowing the maximum area for examination.

It is not always sufficient, in order to elicit rales, to simply tell the patient to take a deep breath for this will not bring out the finer rales that may be heard when other methods are used. Instruct the patient to breathe in, then out and just at the end of expiration to give two small coughs. In this way your patient will get rid of all the reserve air and will then inspire in a deep, regular and smooth manner. If only one

cough is given the results will not be as satisfactory and the same is true if he is allowed to cough several times. In most cases the physician will have to show the patients just how this procedure is correctly carried out before they will be able to do it properly. It is well to stop every few minutes and allow your patient a little rest for one who is not accustomed to it and who is probably weak and nervous to begin with will soon become exhausted. Some patients, especially those who have been examined by several men, will judge, at least to some extent, your ability by whether or not you have them cough during auscultation. The movements of the stethoscope should be so timed that it will be in place at the very beginning of inspiration. Another point I should mention just here is the importance of placing the bell of your stethoscope in the axilla in searching for rales. Just under the pectoralis major muscle and a little anteriorly you will sometimes discover a lesion that would not have been found had this area been omitted in the examination. The pectoralis major muscle should be in a relaxed condition allowing the bell of the stethoscope to be placed well up under its lower border.

Various sounds simulating rales are often heard in the chest and one must be able to differentiate them. These sounds do not usually occur as early in inspiration as do the rales due to lung changes. They are due to the muscles, sternal or scapula or sternoclavicular sounds.

I do not wish to convey the impression that a diagnosis of early tuberculosis can or should be made on the findings in the chest alone, such is certainly not the case. Not infrequently a patient is examined who has changes in the lungs suggestive of tuberculosis and he is told he has the disease. This is wrong. The findings in the chest are important, to be sure, but they alone should not be grounds for telling a man he has tuberculosis. I have in mind a young man twenty-four years old who was examined two years ago. The physician made a diagnosis of tuberculosis solely on the chest

findings and told the patient that if he went to a sanatorium he might live a year. I examined him shortly after this and about two months ago he came to me for another condition and I examined his chest again and have never found any evidence of tuberculosis. During this period he has been enjoying good health. A very careful study of your patient together with a careful summing up of all the evidence in hand, including your chest findings, is necessary before a diagnosis is made.

While most tuberculosis is found in the young it is not unusual to find it in older persons and a chest examination of this class is always in order. Many people present themselves to doctors with vague symptoms and are treated for this or that when a careful examination of the chest would reveal the seat of trouble.

DIARRHEA IN ADULTS*

Trimble Johnson, M. D.,

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It has been often said that diarrhea is always a symptom, never a disease, but this statement should not be the end of our consideration of the diarrhea. On the contrary, it will be found that in many cases a close study of the symptom itself, not only gives us the first clue to the correct diagnosis, but is the only means of determining the most important of the therapeutic indications. Since diarrhea often makes impossible any social or business activity on the part of the patient, even partial relief is welcomed. In many cases of doubtful etiology and of incurable types, this relief can be given, not by routine treatment, but by the application of measures indicated in the individual case. All diarrhea, regardless of primary cause, is dependent on one or more of three pathological conditions; an increase in peristalsis; an increase in the intestinal secretions; an inadequate absorption of fluid by the intestine.

An increase in peristalsis may exist in either part or in the whole of the gastro-intesti-

*Read before November 23 meeting of Davis-Fischer Staff.

nal tract. This increase may result from the passage of physically or chemically irritating substances over a normal mucosa; the passage of normal contents over an inflamed or ulcerated mucosa, an increased nerve stimulation, occurring either as a reflex or as a neurosis and direct stimulation of the muscle by toxins or drugs.

An increase in the intestinal secretions may be due to an active congestion of the mucous membrane, occurring as nature's effort to remove some irritating substance; a catarrhal state resulting from some long continued irritation and a passive congestion of the membrane from cardio-renal or hepatic disease. Under this heading we have to consider the factors, osmosis, secretory neurosis, and excessive fluid intake.

Since the major function of the proximal half of the colon is the re-absorption of fluid, it is with this part we are chiefly concerned when considering the inadequate absorption of fluid. Such insufficient absorption can result from; a diseased condition of the mucous membrane, an excess of fluid already in the tissues, the too rapid passage of feces through the colon, and from excessive fluid intake. Since we know that an emotional strain can inhibit the secretory activity of the gastric and other glands, it is not out of place to include here, a decreased absorption from a secretory neurosis.

Acute diarrhea may be divided into acute temporary and acute onset of chronic. The acute temporary group includes as causes, indiscretions in diet as green fruit or simple over-eating, food idiosyncrasies, the ingestion of toxic or infected food, drug irritations, certain acute infectious diseases of which the most important are typhoid, acute appendicitis, fecal impaction and acute colitis. Cholera also falls in this group, but luckily we do not have to deal with it. The differential diagnosis of acute temporary diarrhea is not usually difficult. An indiscretion in diet if the cause can usually be discovered. If the food eaten was shared with others, the number made ill will tell us whether we are dealing with a food idiosyn-

crasy or with a case of poisoning. Whether the poisoning is ptomaine or botulism is determined by the presence or absence of atropin symptoms common to the latter. If fever be present, typhoid and other infectious diseases are to be considered; but their separation from the food group should not be difficult when we remember that an intoxication by food, sufficient to cause high fever in an adult, will also cause nausea, vomiting, and abdominal pain more marked than that seen in the beginning of the acute infections. The history in drug poisoning and the local signs in appendicitis are usually definite enough to clinch the diagnosis in these conditions, while in the aged, a recent and obstinate constipation would suggest a fecal impaction.

The acute onset of the chronic group gives the most trouble from a diagnostic view point. Here we have pain, tenesmus, blood and mucus in the stools, and usually fever. The only differential point between these cases and the severe cases of food poisoning are, the continuation of the symptoms, the negative dietary history, and the finding of specific organisms in the chronic conditions. Here we must also keep in mind that any acute enterocolitis, untreated, is the potential beginning of a chronic diarrhea.

The chronic diarrheas usually beginning acutely are those due to, bacillary dysentery, syphilitic and malignant growths, and nervous causes; while those beginning so atypically are entamebic dysentery, follicular colitis, and gastrogenic diarrhea.

Most chronic diarrheas begin insiduously however, and are seldom seen by the physician until they are well developed and their dominant features established, so a consideration based on these features is usually applicable in making a diagnosis.

Blood in the stool, when constant or nearly so, points to one of the ulcerative group; follicular colitis, entamebiasis, bacillary dysentery, tubercular ulcers, syphilitic and malignant growths. Tubercular ulcers would be suspected if there were T. B. lesions elsewhere. If a tumor is found on palpation or

by X-ray, the Wassermann and response to treatment should separate syphilis from cancer. Entamebiasis and bacillary dysentery are diagnosed positively by finding the organisms in the stool, but this is sometimes difficult, especially in the bacillary, and when in doubt I think it rational therapy to use treatment for each of these. Blood in the stool of an acute diarrhea has little diagnostic significance other than to indicate a high grade congestion or inflammation, but a large amount of blood unaccompanied by excessive tenesmus would suggest an ulcerative condition.

Mucus in the stool is common to all diarrheas and has little value in the diagnosis, unless it is membranous or tube cast in form, when the diagnosis is obvious, or, when it constantly appears in large amounts, we can assume a chronic catarrh. In the latter case, clear or very light yellow mucus thoroughly mixed with an acid stool which shows undigested food, would indicate the small gut as the origin. If the large bowel alone were affected, the mucus would be, in most cases, dark brown and around the stool, rather than mixed with it.

In considering those diarrheas in which the bloody stool is seen only in the severe exacerbations, or not at all, we find that if the condition is characterized by it's alternation with normal action or constipation, the probable cause is, pellagra, pernicious anemia, hyperthyroidism, tubercular enterocolitis, Addison's disease, nervous causes, or the earlier stages of achylia gastrica. Here we must remember that there are several common symptoms in many of this group, and that achylia gastrica is present in most if not all pernicious anemias, most pellagras, and many tuberculars. Nervous diarrhea should never be diagnosed except by exclusion of other causes.

Chronic diarrhea characterized by constancy, with or without exacerbations, should make us think first of the later stages of achylia, and of chronic catarrh of the small gut. The latter frequently follows the former, or may result from any long contin-

ued irritation. It is seen in many cases of cardio-renal and hepatic disease.

Very pale or white stools are characteristic of the diarrheas of sprue, pancreatic, and liver diseases. The stools in these conditions are also very offensive. The concurrent stomatitis and frothiness of the stool identifies sprue, but it is only by careful study that we are able to differentiate the other three. Aspirated bile, which, though normal in appearance, shows an absence of any of the pancreatic ferments, would prove the pancreas to be at fault. Pathological bile with the ferments present would leave the difficult task of finding whether the liver, gallbladder or ducts were to blame. Constipation being the rule in all makes the study of the atypical diarrhea more difficult.

Diarrhea associated with localized pain is suggestive of diverticulitis and of partial obstruction. Involuntary stools indicate the brain or cord. The so-called morning type is supposed to be characteristic of the nervous diarrheas, but all diarrhea patients will say that they notice an increased desire for stools in the mornings and after meals. One other factor not to be forgotten as a possible cause, is the intestinal parasite. The hookworm and flagellate should each be considered.

The first question in the treatment of a diarrhea, is, whether or not it should be checked. In those cases following food or drug poisoning it is certainly essential that the whole of the poisonous substance be removed before instituting measures to stop the flow. I do not feel that purgatives are always indicated, abundant water by mouth often sufficing to clean the tract. The addition of soda will insure a proper osmotic flow and prevent a further absorption of poison.

In these acute cases, the checking of the diarrhea will be facilitated by withholding more water until the astringent and soothing agents can take effect, otherwise our medicinal remedies are frequently rushed through with no chance to act. In diarrhea

due to cardio-renal diseases, portal obstruction, etc., no effort to check it should be made without due thought, since the diarrhea itself might be an important outlet for retained toxins or excess fluids.

In diarrhea due to faulty digestion, it is essential that we determine which foods are not digested, and which digestive enzymes are lacking. These are often multiple. In all diarrhea the foods known to stimulate peristalsis should be restricted, and this is especially important in the digestive group. Cellulose and connective tissues, because of their physical effect, condiments and fruit juices, because of their chemical effect, should be eliminated from the diet. Meals should be eaten in small quantities, and with little fluid at the time of eating. If the pylorus is relaxed, lying on the left side after meals may delay the rush of food into the intestine. This posture is also beneficial if under the fluoroscope, the major portion of the barium meal is seen above the level of the pylorus. If possible the missing ferments should be replaced, and in all cases the undigested food should be eliminated or at least restricted.

In chronic as well as acute diarrheas, the fluid balance deserves consideration. Even where the pathology is only in the lower bowel, and the effect of the treatment is entirely local, we cannot expect our agents to be as potent in a dilute as in a concentrated solution. We can lower the fluid content in the colon by either lessening the fluid intake or checking the outflow. The lumen of the colon is physiologically outside of the body, and a diarrhea victim may be intensely thirsty while carrying in the colon sufficient water to satisfy. If the desire for evacuation be resisted or the stool be postponed, the excess of fluid will often be absorbed, giving fourfold benefit, the thirst relieved, the diarrhea, with its irritation of the membrane checked, the medicinal agents are given time to act, and the nutrition of the patient improved. Some authorities advise against a voluntary suppression of the stool, fearing a dilated rectum. I do not think the danger great, and even if it were, what

could be of more advantage to the victim of an incurable diarrhea. A close watch should be kept for any signs of increased intoxication and such fluid control should not be used without careful thought.

For the ulcerative type of diarrhea, antiseptic irrigations are advised. When entamebae are found or suspected, constipating with bismuth while saturating with ipecac gives gratifying results. I think autogenous vaccines should be used more in the bacillary and undiagnosed types. Adrenalin instillations are recommended for both the amebic and hyperthyroidism diarrheas. If the treatment decided upon for a given case gets no response in a few days, we can assume that there is some factor not accounted for. We must also remember that two diseases may be present and the failure to recognize one may render futile the treatment of the other. Nor is it enough to know by name the disease at work. Before we can get the maximum therapeutic results, we must know also what pathological factors are present, which primary and which predominant.

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BLOOD CHEMISTRY AND ITS IMPORTANCE TO UROLOGIC SURGERY

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The introduction of clinical methods for blood chemical analyses has been one of the outstanding developments of modern research. The principles of physiological chemistry are being more and more applied in the study of living matter. Surgical therapeutics with more careful and extensive study of the patient and his functional ability in the presence of overwhelming changes in the organism caused by the anaesthetic and the operative attack, is undoubtedly the trend of modern surgery. Indeed, the physiologic surgeon, with a living, well patient, is rapidly overshadowing the so-called "operator" with his brilliant operations,

too often followed by uremia and death.

In urologic surgery, the operative risk is largely judged by kidney function. The function of the kidneys is so often impaired by diseases of the bladder, prostate and kidneys, that, in the light of our present knowledge, the conscientious surgeon will not resort to operative procedures on these organs without seriously considering the question of kidney elimination. The phenolsulphonephthalein test of Rowntree and Geraghty has given us much valuable information regarding kidney function, and is still the method of choice for differentiating the activities of the two kidneys. Blood chemical methods of measuring the activities of the kidneys as a whole, however, have so frequently upset and changed medical diagnosis and prognosis, that it is reasonable to expect the same conditions to occur when applied to surgical procedures. Certainly a knowledge of the normality of blood sugar, urea nitrogen, uric acid, and creatinine will enable the surgeon to proceed with far less cause for fear of unforeseen catastrophe following his operations than if he simply relied on the tests commonly used with respect to the urine.⁸

Renal Diabetes

The blood, as is well known, contains substances of use to the body as well as other substances which are to be eliminated. Food nitrogen is carried by the blood to the various tissues while waste nitrogen is carried to the kidneys for elimination. It is the function of the kidneys to maintain the proper concentration of these substances in the blood, and to excrete them if the concentration rises above the normal. This process of excretion has been compared with the safety valve of a steam boiler, and is simply one of the body's many factors of safety. As the safety valve releases steam when the pressure in the boiler reaches a certain point, in like manner the kidneys begin to excrete the waste products of metabolism when they have accumulated in the blood up to a point known as the "threshold point." For example, sugar is found in the

blood under normal conditions in concentrations between 0.09 and 0.12 per cent, and does not appear in the urine until the valve "pops off," so to speak, when the concentration reaches a point between 0.16 and 0.18 per cent. This point of sugar excretion, or "threshold point" varies in different individuals, and may be below the level of normal blood sugar, resulting in a condition of glycosuria not dependent upon a temporary increase in blood sugar. This condition is known as renal diabetes, and can only be diagnosed by a knowledge of the normality of the blood sugar in an individual free from symptoms of diabetes mellitus.²

Diabetes Mellitus

In true diabetes mellitus the degree of hyperglycemia is of much more importance than the glycosuria. The permeability of the kidneys may be lowered to such an extent that the condition of the patient cannot be determined by the ordinary methods of urinalysis. In fact, urinary determinations become more misleading as the disease advances, since the permeability of the kidneys is gradually lowered and destruction of kidney tissue may be accompanied by the excretion of urine free from sugar while the blood sugar figures are considerably increased. Armanni³ was the first to show that in diabetes there is almost specific injury to the epithelium of the straight tubules by which they lost their cytoplasm and were transformed into hyaline like vesicles without definite structure.

It is obvious, in view of these facts, that blood chemical analyses supply a very valuable means of ascertaining diabetic tendencies; also that patients with advanced diabetes should not be subjected to operative interference or to extensive medical treatment without a knowledge of the blood sugar as revealed by chemical methods.

Prostatic Obstruction

Possibly in no other surgical conditions are chemical analyses of the blood so strongly indicated as in connection with operative procedures upon the old men—candidates for prostatectomy.

We have collected preoperative figures on about 100 uncomplicated cases of prostatic obstruction at the Bremerman Urological Hospital and these cases almost invariably show urea nitrogen figures definitely above the normal. The average is about 19 mg. urea nitrogen per hundred cubic centimeters of blood, as compared with the normal of from 12 to 15 mg.

We regard uncomplicated cases with urea nitrogen figures below 20 mg. per 100 c.c. of blood as good operative risks. When these figures are above 20 mg., and especially between 25 and 30 mg., per 100 c.c. of blood, we strongly favor the two-stage operation with considerable caution, and preferably after a period of rational preparation directed towards the relief of the nitrogen retention. Such preparation consists of systematic catheterization, free washing of the kidneys by copious drinking of water, the use of diuretics, and awaiting until cardiac and renal functions are improved. Urea nitrogen figures above 30 mg. are indicative of bad surgical risk. These patients, however, can often be operated on with favorable results after the institution of appropriate preoperative treatment. Squire⁴ cautions us "that patients with marked nitrogen retention who do not readily yield to treatment are suffering from advanced renal disease and are obviously poor surgical risks."

We believe creatinine estimations are of considerable importance in these cases of marked retention of urea. Theoretically, creatinine estimations should be of greater value, for the reason that its origin and formation is almost entirely the result of a process of normal metabolism in muscle tissue. It is therefore, endogenous, not influenced to any great extent by dietary changes, and is more constant. Creatinine, however, is very easily eliminated by the kidneys, and is not retained in the blood in abnormal proportions until urea is considerably increased. Urea retention is therefore an earlier sign of kidney disease. Being an end product of protein metabolism, it is readily influenced by dietary changes, and gives us a

more sensitive index regarding the response to treatment. Myers,² in his report of 85 cases of marked creatinaemia, concludes that the kidneys are apparently never able to overcome the handicap of a high creatinine accumulation.

The normal figures for creatinine may be taken as from 1 to 2.5 mg. per 100 cubic centimeters of blood. Estimations above 5 mg. "almost invariably indicate a fatal termination unless due to some acute renal condition."²

Other Obstructive Conditions

It is well to remember that kidney function can be greatly influenced by any obstructive condition of the lower urinary tract which produces back pressure on the kidneys. We have seen two cases of stricture of the urethra with unusually high retention figures which have absolutely no clinical or urinary evidence of kidney disturbance at the time of the first examination. True to the prediction of the blood figures, which continued to increase, these patients later developed uremia and died within a comparatively limited time.

Our records show many cases of obstructive conditions with low phenolsulphonephthalein elimination and perfectly normal blood findings. In these cases we have, without regret, disregarded the phenolsulphonephthalein output when considering the question of operative risk.

Cases of malignant and non-malignant vesicle neoplasms usually show slightly increased urea nitrogen figures. The nitrogen retention in these cases is not usually alarming if we except the few cases, usually carcinomatous, with urea nitrogen figures above 30 mg. per c.c. of blood. Such findings would indicate a very unfavorable prognosis.

Gout, Nephrolithiasis, Etc.

Uric acid originates as a result of the enzymatic transformation of the amino and oxypurines, and is found in the blood in normal quantities varying from 2 to 3.5 mg. per 100 c.c. of blood. An increase in this product is a common finding in gout, nephrolithiasis,

leukemia, eclampsia and lead poisoning. Uricacidemia is generally considered one of the earliest symptoms of interstitial nephritis. Feinblatt,⁵ however, in a recent article, is convinced, after a study of 1,500 persons with routine blood chemical analyses "that the great majority of patients with high blood concentrations of uric acid but not of urea nitrogen or creatinine exhibited no evidence at all of early chronic interstitial nephritis."

Uric acid estimations are also of considerable value in the differential diagnosis of gout and arthritis, the estimation usually remaining within normal bounds in the later condition.

Williams⁶ has demonstrated that in eclampsia and preeclamptic toxemia, retention of uric acid is the rule, and that after delivery and recovery from the symptoms the blood value promptly returns to normal.

Chauffard⁷ attributes a common origin to gout and nephrolithiasis, and ascribes the uricacidemia found in both these conditions to a loss of the uricolytic function of the liver.

There are many questions regarding uricacidemia which will have to be solved by further research. At present, two factors invalidate uric acid as an index to renal efficiency. These are, namely, the frequent occurrence of retention in totally unrelated conditions and the lack of parallelism with urea and creatinine in known cases of nephritis.⁸

Urimary Toxemia

Impending or advancing uremia is one of the most dreaded possibilities in the category of medical problems. The question of kidney function cannot be intelligently viewed from the standpoint of operative risk without a survey of the percentage of blood constituents.

Foster has called attention to the high figures of phenolsulphonephthalein output in persons dying with uremia, and states that the "lowering of the concentration is often accompanied by an increased rate of excretion."

Beer reminds us that good excretion of test substances usually means good function. "Occasionally hyperfunction, however, may accompany severe diseases and may be very misleading."

Frank believes that "in a few instances phenolsulphonephthalein acts as a diuretic depending for this action upon renal irritation, and regards an output of more than 75 per cent of the injected drug in two hours as being decidedly suggestive of renal disturbance with irritation where there is other evidence to indicate the same."

There is abundant evidence to support the view that a low phenolsulphonephthalein excretion is not always a contraindication to surgery or a true guide to the functional capacity of the kidneys. Quoting Gradwohl "the estimation of kidney function by the determination of the ease and speed with which a chemical dye can be eliminated through them seems somewhat rash in theory and in practice. Because a dye-stuff is eliminated with a certain degree of ease, it does not follow that the by products of metabolism are similarly passed out through such kidneys." Such eminent authorities as Folin and Denis believe that the phenolsulphonephthalein test indicates the function of the moment, the blood chemical tests indicate the true grade of the working power of the kidneys.

Our experience leads us to believe, that, on account of the numerous factors to be considered in the estimation of kidney function, the phenolsulphonephthalein test occupies a subordinate position to blood chemical analyses.

Any test that tells us what the blood is storing up, what the kidneys are doing, and what they are not doing, and also the exact status of nitrogenous equilibrium should be used extensively in connection with surgical procedures upon the genito-urinary tract and other parts of the body.

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SOME GENERAL REMARKS ON THE CLASSIFICATION AND CARE OF NEURO-PSYCHIATRIC DIS- ABILITIES

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The great majority of disabilities falling under the head of neuro-psychiatry require special consideration, for the reason that they involve the behavior of the patient and, thus, his relations with society. They are not simple problems in mechanics, comparable to those brought about by the loss of, or defect in, some organ or portion of the body. They concern the activity of the person as a whole, their understanding of the facts of the world, their feelings and their attitude towards themselves and others. In many instances the disorder itself prevents the patient from making a safe decision as to his or her course of action, and this selection must often be made for them, sometimes even against their will. Such patients can not be held responsible for their acts, and what is often spoken of as discipline must be here a matter of treatment for disease, to be prescribed only by a physician trained and experienced in mental disorders.

The disturbance in behavior may or may not be combined with, or in some instances due to, disease or defect in the body. Hence in planning for treatment, it is necessary to provide facilities for every form of investigation and therapy known to medicine, as well as those specially designed for the treatment of nervous and mental disorders. It should also be noted that even where a disability seems to be more or less adequately explained by the presence of a bodily disease or deformity, the disturbance of function may be modified, enhanced, or perpetuated by a disorder of the mental state. Real bodily ailments, whether serious or not, often serve as a convenient peg on which to hang a

whole train of functional disabilities. To treat the former and thus emphasize, and perhaps exaggerate, their importance may do much to retard or even prevent the real recovery of the patient to the full extent of which he is capable.

In the majority of neuro-psychiatrics there is no definite bodily disease to be combated. The difficulties are those of making an adjustment to the circumstances in which the patient finds him or herself. These difficulties are in part inherent in the circumstances themselves but are more largely the result of the personality of the patient. The personality is dependent partly upon inheritance and partly upon training, experience, and alterations in the body due to disease or accident to which the patient has been subjected during life. It is possible to modify the circumstances to be faced in various ways, and the personality can also be developed by giving fresh training. Thus we can change the work, home environment and surroundings, and educate the patient to different habits. It is obvious, however, that such treatment must be individual, and hence requires trained personnel and varied equipment.

For purposes of description, neuro-psychiatrics may be divided into four groups, which differ from one another in the requirements for treatment. These are: First, injury or disease to the nerve tissue. Second, the psychoneuroses (or neuroses). Third, the psychoses (or insanities). Fourth, certain constitutional nervous deficiencies.

Group one is comparatively small in size and relatively simple in its requirements. It includes such cases as accidental and other injuries to the nerves and the damage produced by diseases of the nervous system, such as meningitis, "strokes" of paralysis, etc. It should be especially emphasized however, that psychoneurotic additions are not at all infrequent and are very likely to be overlooked. All such cases should therefore be studied with this possibility in mind.

Group two includes the great majority of those conditions which were during the war,

loosely and erroneously described as "shell shock," the "nervous break-downs," hysteria, neurasthenia, anxiety neurosis, psychasthenia, and the so-called "functional diseases," of the heart, stomach, and other organs. In essence the neurosis is a "way out," of some intolerable conflict or difficulty. The feeling of stress, apprehension, and worry which belong to the conflict are interpreted by the patient as evidence of disease or injury, the origin of which is referred back to some accident or illness of the more or less recent past. The suffering is genuine and none the less real because the symptoms are ascribed to some disease or injury.

The treatment of such cases must consist in the discovery of the conflict or difficulty, in convincing the patient as to the real facts, and then in obtaining patient's cooperation to find some satisfactory method of dealing with it which is within his capacity. Obviously this must be individual and cannot be applied to patients in groups or in a routine way. It requires skill and tact, often with devotion of considerable time to each patient.

Group three: The psychoses, differ from the neuroses in that there is a definite loss of touch with reality upon the part of the patients. They do not merely regard themselves as sick and incapacitated but their conception of the facts of the world, of themselves, or of both are definitely destroyed from the reality. As a direct consequence, the behavior is not appropriate to the actual facts of the surroundings, and there is likelihood of the performance of acts which may harm the patient or others. For this reason the patient must usually be removed from ordinary social life, and it is often necessary to restrain their liberty. The great majority of psychoses must be treated, often for long periods, in a hospital or sanitarium properly equipped to care for such cases.

In many psychoses there is some underlying disease of the nervous system, where-

as in others little has as yet been definitely established. Many seem to arise upon the basis of conflicts and difficulties similar to those indicated for the neuroses, but with, perhaps, an added factor of poor construction either from the start i. e. from birth, or as the result of damage from disease or injury during life.

Group four: The constitutional nervous deficiencies, include a group of cases which were never normal, who have found a niche into which they seem to fit, until stress, worry, apprehension, etc., has broken their adjustment, and perhaps aroused ambitions and dreams incapable of being realized, and created cravings and desires which were previously unknown to the patient. The principal problem in this type of case is, one of replacement in a suitable environment and of re-education. This group may be sub-divided into three different groups, the feeble-minded, the epileptic and the constitutional inferiority, or psychopathic personality. The psychopathic personality presents some of the most difficult problems of all. Such persons may show comparatively low intelligence but they may also grade even above the average upon test. The essence of the defect lies in the personality. There appears to be inability to use the intelligence to guide the behavior. The patient may seem to have the knowledge which should enable them to select what to do with fair judgment and yet they do not use it. They may perform all sorts of ill-considered acts to gratify the appetites of the moment without consideration of the consequences even though they know them when questioned. They commit delinquencies of degrees of seriousness ranging from vagabondage, lying, stealing, and forging to murder. It is often alleged that these persons are insane. In some instances these people are plausible and superficially shrewd but they seem to be incapable of steady application and soon tire of any task. Fortunately this group is small, but the potentialities for evil are large. No state has yet succeeded in dealing with this group satisfactorily.

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Editorial Department

PRESENT MEDICAL PROBLEMS

I have been very much impressed by your letter of February 1st, requesting me to write a letter touching upon some of the occurrences during my administration of the medical affairs of the Association.

As one of the first counselors of the Medical Association of Georgia, after its re-organization, and then as president, I was privileged to be associated with the organization for a number of years. It is not difficult to see how radically improved the Association has become since that time: The inauguration of the legal defense, the perfection of the district society, and the general improvement in the Journal of the Medical Association, together with so many other distinctive features, are impressive to one who takes the trouble to look the situation over carefully. But we should not be unmindful that we have made only a beginning. Some of the most important duties have not been attended to. We are still, as has been harped upon so often, considering more the health of domestic animals and our monetary

crops, than the health of our people, and contributing immense sums to correct diseases or to eradicate pests. We are doing so little at this time to improve our water supplies, to eradicate various contagious and infectious diseases, to preserve the lives of our newborn children by properly regulating their foods and hygienic surroundings. We are not instructing our people in the proper preparation of food, and especially looking after the diets and methods of preparing foods conducive to health, especially is this true in our rural districts. We are not carrying out a proper campaign for sanitary conditions in the rural districts and in the small towns, or impressing the people with the importance that these things should be given to lengthen the life and reduce mortality. In fact, we have barely made a beginning, and should at this time earnestly strive to make more rapid progress than has previously been made in the years that have gone by.

I would also mention that we should get actively to work to remove the stigma that is being placed upon the medical profession and especially upon our surgeons who are being accused often now in the secular magazines of doing needless operations for monetary considerations. Such statements should be established by facts, and not by simple rumors, and if there be such surgeons in our midst, their right to practice should be taken away from them. This can be accomplished through the Medical Association of Georgia, and this stigma eliminated, if such a condition actually exists.

Please pardon me for writing such a long letter, but I could make it much more elaborate if I were not afraid of becoming tiresome.

Trusting that this may be given attention, and wishing for you and the Medical Association of Georgia the greatest degree of success and the accomplishment of unlimited benefit to the public and to the profession, I am

Very sincerely yours,

Atlanta, Ga.

E. C. DAVIS.

March 4, 1924.

GEORGIA AND THE MEDICAL PROFESSION

Your report showing the largest membership of the Association was in 1923 has been received. It is very gratifying to learn that the medical profession of Georgia is beginning to appreciate organization.

Without a concerted action of the profession through a compact organization, we can never hope to correct many unfair and discriminating conditions that are directed against the medical profession. Why should the medical man be required to undergo the long and tedious educational preparation before he is eligible to practice medicine, and the members of the various competing cults be permitted to take correspondence courses for a few months at some so-called schools, then go out and compete with a well educated and well qualified doctor of medicine? The Medical Association approves of the higher education for medical men and would not have it otherwise. But we do contend that the state allowing a low standard of education and preparation to compete with us in our high calling of healing the sick is unfair first, to the unsuspecting layman and secondly, to the medical profession. These conditions can only be corrected by well organized campaign of education for the public through the Medical Association. So it behooves every doctor that is jealous of his reputation and profession to join the Medical Association and add his influence to our efforts in correcting the many evils of the Medical Practice Act as it now exists in Georgia.

During 1923 and 1924 several county societies have instituted post-graduate clinics for the members of the Association. These clinics, while not perfected, will be continued annually, and undoubtedly will prove a great benefit to the members of the Association.

There is no reason why we should not conduct medical clinics in the South just as ably as in any other section of our country. All that is necessary is the co-operation of the profession of Georgia with the men that are putting on the clinics. We have the material, the hospitals, the laboratories and the qualified personnel to carry on this work successfully. And in future years it is going to prove of vast benefit to the medical profession of Georgia. Let me urge upon the members of this Association to make every effort to attend the coming sessions of these clinics.

During October, 1923, the Statewide Health Association was organized in Savannah. This Organization is composed of doctors, bankers, presidents of large industries and corporations and men of affairs. It is the common meeting ground for the medical profession and the business men, where matters of health, which is now the most vital question in Georgia, can be discussed, and aggressive steps taken to correct the many health conditions that are neglected, which are a detriment to our state. It has been conclusively shown that the great progress of North Carolina and Florida is due entirely to two things, higher education and better health. It behooves Georgia to take notice of these facts and to begin an active campaign to regain our position as the Empire State. If the medical men will only grasp this opportunity and show the layman that the prosperity and welfare of our state is in the hands of the medical profession, that it is our responsibility, that we are equal to it, and with the aid of the business man, we will reclaim Georgia and put her first among the states of the South.

I hope through the columns of the Journal that you will urge upon every district councilor and the president of every county organization to make an active and aggressive campaign to get the qualified medical men that are not members of the State Association to join and come to Augusta in May, and see the good work the Association is doing for the profession and the people

of Georgia. With the numerous plans for an active campaign for better health conditions in Georgia, post-graduate clinics, clinics for the education of the layman along the lines of preventive medicine, the school inspection, the co-operation between the parent-teachers association and the medical association, with the business men looking to us to clean up Georgia, how can any medical man afford to sit quietly by and permit his neighbor to assume alone this great responsibility which is placed upon the shoulders of the Association.

Let each member become active in spreading the information as to what the State Association is doing, let each member see that his neighbor joins. Make 1924 the greatest year we have ever had. When we present a united front, then and not until then, will we be recognized as the leading profession, the profession of the greatest responsibility, and the men to whom the people are looking to save the State.

Yours truly,

JOHN W. DANIEL.

PURPOSES OF THE STATE WIDE HEALTH ASSOCIATION OF GEORGIA

1. To educate the people of Georgia to the urgent necessity of better health conditions throughout the state, if Georgia is to progress commercially, agriculturally and industrially.

2. To impress the County Commissioners and Grand Juries of Georgia with the necessity of adopting the Ellis Health Law in order to further the good health work.

3. To bring pressure to bear upon the Legislature to appropriate sufficient money to the State Board of Health for the proper administration of the health laws of Georgia.

CANCER*

Statistics now seem needless. The foul, corroding, crab-like, death-dealing thing called cancer is everywhere; but, more important from our viewpoint, it is here with us, increasing with our growing civilization of which we are so proud.

We do not know as yet the exact nature of the cancer cell or the cancer virus. We have no "Cancer immune" or "cancer cure serum." We are, however, learning much as to the nature of the enemy and his methods of attack. Victory comes often to us through surgery, the use of radium, X-ray, etc.; and now we hope to accomplish much by prevention.

I have consulted the Provincial Board of Health, and wish to comply with their desire so far as possible. Their main wish, as I understand it, is to have the general practitioners informed as to the cancer situation, with the hope and expectation that they will do what they can to educate the public, especially as to causation and prevention. We desire in all our efforts to cooperate with the American Society for the Control of Cancer which has been doing such good work for years.

What is the Cause of Cancer?

I touch this question with hesitation because it has elicited much discussion which has sometimes degenerated into controversy, and has, occasionally, called forth unkind remarks from kindly men who are justly regarded as leaders in our profession. Their unpleasant speeches do not spring from anger, but rather from impatience, largely through fear of the danger of false doctrines, which may prevent the sufferers from choosing the best available means of treatment. The danger is real, but is seldom or never lessened by asperity.

We do not know that cancer is caused by a parasite, heredity, lack of vitamins, tomatoes, canned meats, environment, etc. We

think, however, that the following are at least contributory causes: habits of civilization, chronic irritation, faulty diet, excesses of various kinds, and constipation with stagnation of material which decomposes, becomes putrid, and poisonous.

When we observe that a pimple or a wart or a mole or a crack is converted into a cancer by long-continued irritation, we believe the irritation caused the cancer, although Sir Lenthal Cheatele does not quite concur. If we cannot tell why and you cannot, after scientific investigation, tell us how, we still retain our opinion. When there is irritation along the track of the gastrointestinal canal it causes ulcers, which in turn become cancers. There is nothing hazy or nebulous about such a theory, if you care to call a thing so simple and plain a theory.

We need not now discuss the question as to whether or not cancer is constitutional. I shall simply in connection therewith give our readers again Arbuthnot Lane's inspiring aphorism, simple, comprehensive and full of wisdom, which I accept in its entirety: "Cancer never affects a healthy organ."

We cannot take our readers to the wilds of Asia, Africa or South America, but we can tell them that McCarrison, Stanley, and Hoffman discovered there was no cancer among the uncivilized inhabitants of these districts.

McCarrison shows some of the faults of civilization. Sir Arbuthnot Lane supports McCarrison, shows how the faults mentioned cause cancer in addition to other ailments.

Prevention of Cancer

The papers furnished by the contributors living in London, England, refer chiefly to prevention rather than cure.

Sir Arbuthnot Lane believes that intestinal stasis produces cancer either by traumatism or indirectly by the influence exerted on the tissues by the toxins circulating in the blood.

Dr. Jordan believes that apart from surface irritation stasis is the main and essential cause of cancer in practically every organ.

Dr. Mutch states, from knowledge gained at 2,000 autopsies of cancer of the stomach, that the malignant growth should not be regarded simply as tumor of the stomach, but as a lesion of all the digestive apparatus as a whole, with structural defects in the small and large intestines, with "kinks" especially the one called by Lane "the first and last kink." Cancer of the stomach is essentially a part of a disease of the whole alimentary tract and not an entity in itself. The prevention of cancer of the stomach should be a much simpler task than the cure of the cancer after it has taken root. Jordan says a healthy stomach does not become cancerous; stasis attacks it first.

Cancer in the Female

Mr. Harold Chapple considers that Lane has demonstrated beyond doubt that chronic interstitial mastitis is caused by absorption of material from the intestinal tract, and it completely disappears after adequate drainage of the intestinal canal.

Cancer of the uterus is always associated with intestinal stasis. He also attaches great importance to the "last kink, which is so frequently present in the colon where it crosses into the pelvis."

Sir Lenthal Cheatele, in referring to the origin of cancer, expresses the belief that an agent which induces growth should not be described as the cause of growth. An irritant may induce carcinoma, but its importance in that regard should not place the effects of age, heredity, sex, secretion, and nutrition in a position of secondary consideration.

Notice what Lane says in the same connection: Failure to discover the origin of cancer is due to the fact that it is not recognized as a part of a sequence, but is regarded as a primary condition. The cancerous cell will only grow in a suitable soil, and

that soil is provided for by the prolonged action of toxins in the tissues.

Dr. Shaw-Mackenzie's Paper

Our readers can peruse with both pleasure and profit the paper by Dr. Shaw-Mackenzie. It will be found particularly interesting to all wishing to make themselves familiar with the more recent work on the biological aspects of the problem. There are admittedly many sources of error in the measurement of the enzyme activities, particularly of tissue extracts, but also, to a less extent, probably of blood. If these have been adequately controlled in the observations referred to in this article it would appear that some definite relationship must exist between these enzymes and cancerous conditions in the animal body. It would be of decided significance if the results obtained by Dr. Mackenzie should prove correct. Thus thinks Professor Macleod, of the University of Toronto, as I understand him.

Professor Shaw-Mackenzie is recognized as one of England's most earnest and patient research workers, and we are glad to have the opportunity of publishing a resume of results of many years of labor in King's College Laboratories.

The general practitioner and expert surgeon both dread cancer of the uterus. Dr. Ochsner's opinions regarding the results of radiumtherapy are most encouraging, although they have not been accepted in their entirety by some of our surgeons who still adopt a procedure such as actual cautery followed by hysterectomy. But our surgeons are working with an open mind and some at least are looking forward to the time when in their opinion the technique of radium and X-ray therapy will be further perfected to enable them to entertain the optimistic opinions now held by Ochsner. In my opinion that time is near at hand. Dr. Ochsner is an expert surgeon endowed with rare good judgment and his decision to transfer most

of such cases to the radiologist is a distinct step in advance.

We are much pleased to get Dr. Degrais' paper now published in English for the first time. Degrais was associated with Wickham and has been working constantly with radium since 1908. Degrais is naturally conservative and his opinions always valuable. He acknowledges that radium is not an infallible remedy. It sometimes fails. But even in what may be considered advanced cases it sometimes cures, and frequently improves the condition and prolongs life. He thinks that in the operable stage ninety per cent of cases of cancer of the cervix uteri are directly amenable to radium with no risks. His results compare most favorably with those furnished by surgery. I fear the increased frequency of cancer among young women, to which he refers, exists also with us.

The Cure of Surface Cancers

It is satisfactory to learn from Dr. Harrison's paper that a large proportion of patients suffering from skin cancer are now cured. It is also satisfactory to note that in recent years a larger proportion of patients present themselves for treatment in the early stages of the disease, showing that the public, as well as the general practitioners, are being educated. Notice in this connection what Cheatle says about rodent ulcer.

Examination by X-ray

We learn from Dr. Tovell, what everyone knows to some extent, that great progress has been made in X-ray work in recent years. We are reminded that roentgenology has opened up a new field for pathological investigations of conditions "from stage to stage." Many examples of excellent results in this regard will be found in some of the papers of our English contributors.

Dr. Tovell expresses the opinion that the work of Lane and others upon alimentary stasis offers a very interesting field of research. "That in itself is a problem for future careful investigation."

The Influence of Radiation Therapy on the Study of Cancer

Dr. Ewing has given us a valuable paper. He speaks from a scientific viewpoint and with broad vision. His paper is interesting and illuminating. He explains that radiation therapy of cancer has given an impetus to study the biological and physiological peculiarities of tumors under radiation. He gives prominence to the fact generally recognized by radium experts that response to radiation is inversely proportionate to the stability of its nutrition which in turn depends on the blood in the cell. Delicate blood vessels and rapidly growing cells render the tumor susceptible to radiation. In consequence, we get sometimes sensational results, especially in embryonal tumors, in which cure is effected without notable damage to normal structures. In another class of tumors adult cells must be killed, with often a caustic action, not so satisfactory, though, it frequently produces growth restraint with prolongation of life, and, perhaps, permanent cure in exceptional cases, as, for example, in Hodgkin's disease and leukaemia. It appears that the study of reaction of tumors to radiation has opened up a new field in biological study of tumors, created new views as to treatment and increased the control of malignant neoplasms.

There is for me a fascination in Dr. Ewing's style of writing, and I consider this the best treatise on radiation I have ever read.

The Memorial Hospital

We are greatly indebted to that brilliant Memorial Hospital group who have given us an invaluable set of papers. We rejoice to know that two of these contributors are Canadians, and graduates of the University of Toronto—Douglas Quick and Frederick Johnson. In returning our thanks to these men and also to Drs. Burton Lee, William Healy, W. S. Barringer, and William S. Stone, we offer our congratulations on the results of their very valuable work in investigating the causes and treatment of cancer.

Let me close by expressing my positive opinion, founded on clinical observation,

careful study, and the evidence furnished in this issue:

The causes of cancer are to a large extent known.

Cancer can be prevented in a large proportion of cases, including especially cancer of the stomach.

Early diagnosis has become easier and more certain, especially through the improved methods and results from X-ray examination.

The majority of skin cancers can be cured.

A large proportion of cancers formerly considered hopeless can be cured.

A. H. WRIGHT.

*Editorial in *The Canadian Practitioner*, Vol. XLIX, No. 3, March, 1924, pp. 181-188.

AN OPEN LETTER FROM DR. ABERCROMBIE

The year 1924 is under way. I certainly trust your last year's work was satisfactory and that the coming year your highest expectations and hopes may be realized.

We have had a busy year at the State Board of Health. The laboratory examined 39,404 specimens in 1923. I do hope you have taken advantage of it and that you have found it satisfactory. We will maintain it at its high state of efficiency. It must be the best. It must be dependable. Money is the only thing that curtails our work. We need more funds to enlarge our scope.

We will be glad to supply you with containers for specimens. We still furnish typhoid vaccine, diphtheria antitoxin, the Schick test, Silver Nitrate, Pasteur treatment, Neo-Arsphenamine, and all the other things we have been furnishing. Write us any time about your problems.

Will you not please make one of my wishes come true this year? File your birth and death certificates promptly and send us a report on every infectious and contagious disease. Our State must get in the Registration Area and it is up to you to do your part. Blanks and cards are furnished on request.

Have you any suggestions?

Sincerely yours,

T. F. ABERCROMBIE,
Commissioner of Health.

COUNTY SOCIETY REPORTS**Ben Hill County Medical Society**

Ben Hill County Medical Society announces the following officers for the year 1924:

President—Dr. L. S. Osborn, Fitzgerald.

Vice-President—Dr. E. A. Russell, Fitzgerald.

Secretary-Treasurer—Dr. W. P. Coffee, Fitzgerald.

McDuffie County Medical Society

The McDuffie County Medical Society announces the following officers for the year 1924:

President—Dr. Sterling Gibson, Thomson.

Secretary-Treasurer—Richard Y. Pryce, Thomson.

Tattnall-Evans County Medical Society

Tattnall-Evans County Medical Society announces the following officers for the year 1924.

President—Dr. L. V. Strickland, Cobbtown.

Vice-President—Dr. J. J. Kennedy, Collins.

Secretary-Treasurer—Dr. J. C. Collins, Collins.

Delegates—Drs. B. E. Miller and G. W. Tootle.

Worth County Medical Society

The Worth County Medical Society announces the following officers for the year 1924:

President—Dr. J. L. Tracy, Sylvester.

Vice-President—Dr. W. W. Sessions, Sumner.

Secretary-Treasurer—Dr. C. C. Tipton, Sylvester.

Delegates—Drs. J. L. Tracy and W. W. Sessions.

Gwinnett County Medical Society

The Gwinnett County Medical Society announces the following officers for the year 1924:

President—Dr. N. J. Guthrie, Norcross.

Vice-President—Dr. W. J. Hutchins, Buford.

Secretary-Treasurer—Dr. D. C. Kelley, Lawrenceville.

Delegates—Drs. W. J. Hutchins and D. C. Kelley.

Whitfield County Medical Society

The Whitfield County Medical Society announces the following officers for the year 1924:

President—Dr. Trammel Starr, Dalton.

Vice-President—Dr. J. C. Rollins, Dalton.

Secretary-Treasurer—Dr. B. L. Kennedy, Dalton.

Altamaha County Medical Society

The Altamaha County Medical Society has re-organized and announced the following officers for the year 1924:

President—Dr. J. M. Hall, Hazelhurst.

Vice-President—Dr. W. C. Pirkle, Baxley.

Secretary-Treasurer—Dr. G. C. Overstreet, Hazelhurst.

Gordon County Medical Society

The Gordon County Medical Society announces the following officers for the year 1924:

President—Dr. R. M. Gray, Sugar Valley.

Vice-President—Dr. M. A. Acree, Calhoun.

Secretary-Treasurer—Dr. Z. V. Johnston, Calhoun.

Chattooga County Medical Society

The Chattooga County Medical Society announces the following officers for the year 1924:

President—Dr. M. N. Wood, Menlo, Ga.

Vice-President—Dr. R. E. Talley, Trion.

Secretary-Treasurer—Dr. F. W. Hall, Summerville.

Delegates—Drs. F. W. Hall and B. F. Shamblin.

Banks County Medical Society

The Banks County Medical Society announces the following officers for the year 1924:

President—Dr. J. S. Jolly, Homer.

Vice-President—Dr. M. P. Deadwyler, Maysville.

Secretary-Treasurer—Dr. O. N. Harden, Homer.

Elbert County Medical Society

The Elbert County Medical Society announces the following officers for the year 1924:

President—Dr. A. C. Smith, Elberton.

Vice-President—Dr. A. S. Johnson.

Secretary-Treasurer—Dr. B. B. Mattox, Elberton.

Delegate—Dr. D. N. Thompson, Elberton.

Muscogee County Medical Society

The Muscogee County Medical Society announces the following officers for the year 1924:

President—Dr. J. H. McDuffie, Sr., Columbus.

Vice-President—Dr. W. P. Jordan, Columbus.

Secretary-Treasurer—Dr. R. S. Torbett, Columbus.

Delegates—Drs. J. M. Anderson and W. L. Cooke.

Laurens County Medical Society

The Laurens County Medical Society announces the following officers for the year 1924:

President—Dr. J. E. New, Dexter.

Vice-President—Dr. C. A. Hodges, Dublin.

Secretary-Treasurer—Dr. O. H. Cheek, Dublin.

Delegates—Dr. C. A. Hodges and Dr. C. G. Moye.

Walker County Medical Society

The Walker County Medical Society announces the following officers for the year 1924:

President—Dr. J. M. Underwood, LaFayette.

Secretary-Treasurer—Dr. J. H. Hammond, LaFayette.

devoted the meeting to the Cancer Control Movement.

2—Agreed to write our Senators and Congressmen and urge that they do all in their power to prevent the cutting down or cutting out the donation to the Venereal Department of the State Board of Health.

3—The Society went on record as being behind the Healthmobile movement in Ware County to assist in any way possible. We believe in education which is the forerunner of progress and prosperity.

J. E. Penland, Secretary.

NEWS ITEMS

Dr. W. W. Crook, of Cuthbert, is at the New Orleans Polyclinic for a month, taking Post-Graduate work.

Dr. J. T. Pettit, formerly of Orange, is now located in Canton.

Dr. B. H. Brock announces the removal of his offices from Greenville to Hogansville.

Dr. J. P. Eberhardt has opened offices in the First National Bank Bldg., at Elberton, Ga.

Dr. Iverson C. Case is now practicing in the Hurt Bldg., in Atlanta, specializing in orthopedic surgery.

The friends of Dr. A. B. Eberhart will be pleased to learn that he has completed his internship at the Macon Hospital and has located at Ellistown, in Henry County.

Dr. F. C. Moore announces the opening of offices in the Stovall Bldg., Tampa, Fla.

Dr. W. C. Howell has opened offices in the First National Bank Bldg., Colorado Springs, Colo.

Mrs. Fred Pound, R. N., formerly Mrs. Arzaner Jackson, has moved the location of her home for the care of old ladies from Forsyth, Ga., to 42 Elizabeth St., Atlanta.

Ware County Medical Society Meeting

February 16, 1924

1—The Ware County Medical Society met February 16th with a good attendance and

HEALTH PROGRAM—MERCER UNIVERSITY INSTITUTE FOR WOMEN

Our association has been invited by Mercer University Institute for Women to prepare a health program and furnish the speakers for its extension course, which is to be held in Macon, Ga., from June 16th to 29th.

The following program will be presented by our members:

1—Malaria Fever—How it spreads and its prevention. T. F. Abercrombie.

2—Typhoid Fever; Hookworm and Tonsillitis, its effect on the heart, arthritis, etc. V. P. Sydenstricker.

3—Tuberculosis—How it spreads and its prevention. E. C. Thrash.

4—Cancer—Importance of early diagnosis and its prevention. Chas. C. Harrold.

5—Metabolic Diseases—Relation of foods to same, etc. Edgar D. Shanks.

6—Prenatal Care, etc. Joseph Akerman.
Theodore Toepel.

DR. ABERCROMBIE HONORED

A world conference on public health and sanitation is to be held at the Hague April 24th, under the auspices of the allied nations.

The Surgeon General of the United States Public Service has asked Dr. Thos. F. Abercrombie, Secretary of the Georgia State Board of Health, to represent our country at this meeting. The meeting will be closed with an itinerary of inspection of the conditions of Denmark and Holland. Dr. Abercrombie has accepted the appointment, and will leave the States April 15th.

This is quite a compliment to the southeastern states, especially so to the Georgia State Board of Health, of which Mr. Robert F. Maddox is president, but it is also personally a compliment to Dr. Thos. F. Abercrombie, who has been at the head of the State organization in an executive capacity for the past six years.

PUERPERAL SEPTICAEMIA

There was a gratifying fall in the mortality from puerperal conditions among the 15,000,000 industrial policyholders of the

Metropolitan Life Insurance Company in 1923, according to the January Statistical Bulletin issued by that company. The death-rate per 100,000 for the year was 17.9 as compared with 19.0 in 1922, and 23.0 in 1920. With the single exception of the year 1916, when the rate touched 17.6, the 1923 figures was the lowest ever recorded among the industrial population.

Louis I. Dublin, Ph.D., the Metropolitan's statistician, in commenting on the above figures, said:

"Diseases incidental to pregnancy and childbirth are still an important field for public health work. The mortality can be further reduced by greater emphasis on nursing supervision during pregnancy, at the time of delivery and during the immediate postpartum period. Especially encouraging are the lower death rates last year from puerperal septicemia and albuminuria. The former in particular may be brought down still further by the closer attention of obstetricians and health officers to sources of infection."

The decrease in the death rate from puerperal septicemia referred to was from 7.4 in 1922 to 6.9 in 1923. The death rate from puerperal albuminuria and convulsions was 4.2 in 1923 as compared with 4.7 the previous year.

ANNOUNCEMENT OF AWARDS FROM THE BENJAMIN FRANKLIN FUND

Established in London, 1759

Benjamin Franklin spent much time in England from 1757 to 1762 representing the American Colonies. While here he placed one hundred pounds in the hands of members of the Society of Friends as a trust, to be invested with accumulations, for not less than one hundred and fifty years. Thereafter at the discretion of the trustees, awards were to be made from time to time for the most valuable contributions to science considered by them either manuscript or published, on the subject of cures, but particularly in relation to surgery, the nervous sys-

tem and part "mind treating" have in the recovery and preservation of health.

Announcement is now made of the first awards from this fund.

Minor award, Fusakichi Omori of Tokio, unpublished treatise "The Rotary Knife in Surgery," five hundred pounds and publication of treatise.

Award, Charles P. Steinmetz, of Schenectady, privately published treatise, "The Nervous System as a Conductor of Electrical Energy," one thousand pounds and republication of treatise.

Major award, Pierson W. Banning of Los Angeles, on published work, "Mental and Spiritual Healing; all schools and methods; a text book for physicians and metaphysicians," two thousand five hundred pounds, scholarship.

ROBERTS LLOYD-GRESHAM,
London, W. I. For the Trustees.

GRANT FOR SCIENTIFIC RESEARCH **Committee Requests Applications for Aid to Research**

The trustees of the American Medical Association have made an appropriation of \$2,000 to further promising research in problems relating to scientific medicine and of practical interest to the medical profession, which otherwise could not be carried on to completion. Applications for small grants should be sent to the Committee on Scientific Research, American Medical Association, 535 North Dearborn Street, Chicago, before March 10, 1924, when action will be taken on the applications at hand.

THE CHICAGO SESSION **The Scientific Exhibit**

The Committee on Scientific Exhibit calls attention to the fact that all applications for the Scientific Exhibit, Chicago Session, must be in the hands of the director before April 1st. Any who desire an application blank may obtain it by sending a request addressed to Director, Scientific Exhibit, American

Medical Association, 535 North Dearborn Street, Chicago.

From the applications received so far, the exhibits at the Chicago Session promise to be of great scientific value and interest. One of the outstanding plans is that of the Committee on Scientific Exhibit of the Chicago Medical Society; a comprehensive exhibit on morbid anatomy in which fresh specimens, obtained from local hospitals, will be demonstrated by various pathologists.—*Jour. A. M. A.*, March 1, 1924.

WHY THE MEDICAL PROFESSION **SHOULD BE RELIEVED FROM** **PRESENT TAX BURDENS**

The medical profession has three causes for complaint concerning federal taxation:

1. That under the Harrison Narcotic Act, as amended by the Revenue Act of 1918, an excessive and now unnecessary war tax is imposed on the profession.

2. That the physician is compelled to pay an income tax on money paid out by him for certain expenses of his profession, and is thus taxed on an amount in excess of his net income.

3. That the physician is taxed on his earned income at the same rate that he and taxpayers generally are taxed on income from investments, etc.

The following memoranda are submitted to aid the profession in making a clear statement of the situation in presenting to Congress its appeal for relief.

Arguments Against the Continuance of the War Tax under the Harrison Narcotic Act.—In protesting against the continuance of taxation under the Harrison Narcotic Act at the rate fixed by the Revenue Act of 1918 as a war measure, three dollars a year, it should be made clear that the medical profession is not protesting against the Harrison Narcotic Act itself, nor against such taxation under it as may be necessary to give the federal government jurisdiction. The Harrison Narcotic Act originally fixed a tax of one dollar a year, which was deemed

sufficient to secure federal jurisdiction, and of that tax no complaint was ever made. Any tax in excess of the minimum amount necessary to give federal jurisdiction is essentially an occupation tax on the physician, and as such represents a discrimination against the medical profession, since federal occupation taxes are not imposed on other professions. So far as this tax may be passed on by physicians to their patients, it is a tax on the sick and injured, falling on them because they are sick and injured. The tax collected under the Harrison Narcotic Act is paid into the general revenues of the United States, and does not go directly toward the enforcement of the act. The amount collected under this act from all sources is largely in excess of the amount expended for the enforcement of the act—in 1922, for instance, \$610,311.13 in excess of the amount expended during the same year. In any event, however, there is no reason for imposing on the medical profession any greater part of the cost of enforcing the law than is imposed on any other group in the community, for the law is enacted for the benefit of the community and not for the benefit of the medical profession.

Argument in Favor of the Deductibility of Traveling Expenses and of the Cost of Postgraduate Study, as Expenses of the Practice of Medicine, in Computing the Physician's Income Tax.—In protesting against so much of the present income tax law as is construed as denying to the physician the right to deduct, in computing his federal income tax, expenses incurred in attending meetings of medical societies and in postgraduate study, the following facts should be borne in mind. The present law provides that the physician, in common with all other business and professional men, in computing his net income, may deduct, "all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensation for personal services actually rendered; traveling expenses (including the entire amount expended for meals and lodging) while away from

home in the pursuit of a trade or business; . . ." "The Commissioner of Internal Revenue has ruled, however, that a physician who is away from home in attendance at a meeting of a medical society or while pursuing postgraduate study is not away from home in the pursuit of his profession and that the expenses incident to such travel and study are not ordinary and necessary expenses of the practice of medicine. Such expenses are regarded by the commissioner as merely personal expenses, such as are covered by the provisions of the income tax law which allow to all taxpayers, without regard to their callings or to the necessity for travel imposed by such callings, certain exemptions to cover personal expenses. Obviously, this ruling ignores the fact that such expenses arise in the case of a physician as incidents of his professional work.

The commissioner's interpretation of the law in this respect is out of harmony, too, with the provisions of the law generally, as they relate to medical practice. The physician may, for instance, deduct as a professional expense membership dues paid to medical societies, but the ruling complained of penalizes him if he undertakes to make such a membership effective by attending the meeting of such societies. The incongruity of the ruling is further shown by the fact that if a physician travels from one place to another to consult with a fellow physician regarding the treatment of a single patient, he can deduct the expenses of such travel, whereas if the same physician travels between the very same places to confer with a hundred of his fellow physicians in consultation concerning the treatment of patients, generally, he cannot deduct his expenses. If a physician travels from one place to another to examine one patient in order to apply the knowledge and skill thus acquired for the benefit of that patient, his traveling expenses are deductible; but if he travels from one place to another to engage in postgraduate study of many patients in order to make the knowledge and skill obtained available to the entire community which he serves, he cannot deduct traveling

expenses, but must pay an income tax on them.

Obviously, to discourage meetings of medical societies and of postgraduate study, as the prevailing construction of the Revenue Act of 1921 now does, is poor public policy. Meeting in such societies and in the course of such study tends to conserve and promote public health. It tends, too, to increase federal revenues by increasing the earning capacity of the physician. Moreover, by bringing together physicians from various parts of the country, it tends to break down local prejudices and to encourage broader national unity and patriotism. Such travel ought, therefore, to be encouraged, not discouraged.

Argument in Favor of the Reduction of Tax Rate on Earned Income.—The provision of the proposed revenue law that makes the rate of taxation on earned income less than the rate on income from investments, speculation, etc., is new. The benefit thus conferred is to be extended to all taxpayers with earned incomes, and the physician is to be benefited merely as a member of the income-earning group. The concessions in favor of earned incomes is based on the fact that taxation on an earned income is taxation on the productive activity of the taxpayer and tends to discourage such activity and that, since the productive activity of the taxpayer may be diminished or destroyed at any time by personal disability and is certainly destroyed by death, it is entitled to special consideration in the determination of the tax rate. The concession in favor of earned incomes has been recommended by the Secretary of the Treasury, but unless those who are to be benefited by it unite in an effort to make their position clear, the secretary's recommendation may not receive favorable action by Congress.

Procedure to Make Requests and Protests Effective.—State and county societies should adopt resolutions, and file copies of them with the Committee on Ways and Means of the House of Representatives, and the Committee on Finance of the Senate. This can be best done through an interested senator or representative in Washington. Copies of

such resolutions should be sent also to all senators and representatives from the state from which the request and protest comes. Individual physicians should write to the senators and representatives who represent them in Congress, acquainting them with the views of the profession regarding the situation. This should be done immediately, as action on the pending bill will probably be not long delayed.—Reprinted from *The Journal of the American Medical Association*, Jan. 26, 1924, Vol. 82, pp. 326 and 327. Copyright, 1924.

SELECTED ABSTRACTS

Immunization Against Typhoid.—Ordinarily typhoid vaccine is administered at intervals of seven days. It is said that if the interval is less than seven days, the immunity may be less than after longer intervals. It is asserted also that the maximum response follows when the intervals between the injections are lengthened to eighteen or twenty days. No definite statement can be made as to what the optimal intervals really are. Immunity after antityphoid inoculation is not absolute. Army medical officers express the opinion that immunity from inoculation begins to decline in from two to two and one-half years; but even after four and five years, the typhoid rate of inoculated troops has been estimated at about one-fourth that of uninoculated troops. (*Jour. A. M. A.*, Feb. 2, 1924, p. 411.)

Treatment of Lichen Planus.—Lichen planus can be usually successfully managed by the intramuscular injection of some preparation of mercury. Mercuric chlorid is commonly employed in a dosage of 0.015 gm. (one-quarter grain) twice weekly. A 1 per cent solution of this drug is physiologic sodium chlorid solution is prepared, and 15 drops injected at the first dose, 20 the second and subsequently 25 at each injection. From eight to sixteen injections are commonly sufficient to clear up the disorder. Local measures for relief of itching may be employed at the same time. (*Jour. A. M. A.*, Feb. 2, 1924, p. 411.)

The Absorption of Epinephrin.—Although epinephrin is absorbed from the mucous membranes of the nose, throat, mouth, urethra, vagina and rectum, the effectiveness of such modes of introduction is too uncertain to make them popular. The drug is not absorbed from the gastrointestinal canal to induce any appreciable effect. Intravenous administration must be used with extreme caution and the manifestations secured are likely to be rather evanescent. The response to intramuscular injection is considerable. There is a widespread belief that the subcutaneous administration of epinephrin causes little effect and that the action is decidedly uncertain. However, the relief which is secured from the hypodermic injection of epinephrin in asthmatic patients is evidence that absorption by this route is rapid and satisfactory. It probably proceeds by lymphatic rather than by blood vascular channels. (Jour. A. M. A., Feb. 9, 1924, p. 473.)

The Insulin Reserve.—It is highly probable, according to R. N. Wilder, that patients with the acute type of diabetes will in a few years lose all native tolerance for glucose, and become completely dependent on insulin. In such cases 37 units (old standard) of insulin may be required, and in some cases as much as 56 units a day. A partially diabetic patient may suddenly be converted into a totally diabetic patient by infection and, therefore, a month's supply of insulin should be kept on hand. Reginald Fitz and William P. Murphy state that there are two classes of diabetic patients: those to whom insulin is a luxury and those to whom it is a necessity. They hold that the wise physician will conserve the use of insulin to the cases of such diabetic patients as can dispense with it or use only small amounts and will hold it in reserve as an indispensable product, for the patients who require large amounts in order to secure definite results. (Jour. A. M. A. Feb. 9, 1924, p. 473.)

Treatment of Pernicious Anemia.—Arsenic and blood transfusion are the two established forms of therapy in the treatment of pernicious anemia, though neither is curative. Arsphenamin in doses of 0.03 to

0.06 gm. intramuscularly at intervals of days or weeks has been found useful in some cases, though it has failed in others. (Jour. A. M. A., Feb. 9, 1924, p. 491.)

Carbon Tetrachlorid for Hookworm.—Carbon tetrachlorid is at present obtaining such an amount of favorable notice that, unless subsequent experience demonstrates as yet unknown dangers, it may be considered a suitable method for the treatment for hookworm. The drug is palatable, requires no preparation of the patient and is relatively non-toxic. The only fatal results so far recorded were associated with the use of an impure product. The commercial product is unfit for use. Hence, the New and Nonofficial Remedies quality should be insisted on by prescribing carbon tetrachloride Medicinal—N. N. R. The dosage generally recommended is 0.2 Cc. (3 minims) for each year of life; with an adult, a dose not exceeding 3 Cc. In prescribing, one may order twice the amount indicated for a single dose, and the patient may be instructed to repeat the dose at an interval of fourteen days. It is simply administered from a tablespoon which has been half filled with sweetened water. It is usually best to administer magnesium sulphate two hours after the drug is given. (Jour. A. M. A., Feb. 16, 1924, p. 569.)

PROPAGANDA FOR REFORM

The Menace of "Moonshine" Whiskey. The untoward results of overindulgence in whisky have usually been ascribed to its alcoholic content, although now and then ill-defined "by-products" of fermentation present in the distillate have been charged with a toxicity out of all proportion to the quantities ordinarily present. The indefinite "fusel oil" and furfurol were often designated as the pernicious ingredients. In properly made and suitably aged whiskies, such constituents could at most play only a minor part in the intoxication produced. While alcoholism is less prevalent today than it was a few years ago, its attendant and after effects on its victims are more serious. The impression is broadcast that this

is due to the "moonshine" liquor which is being distributed. The danger from the presence of methyl alcohol in "moonshine" whisky is well-known. Its presence is explained by the use of denatured alcohol (which may contain methyl alcohol) in the preparation of "moonshine" whiskey. However, the investigation of the federal authorities indicate that ordinarily methyl alcohol is not the pernicious constituent of illicit whisky, but instead the product has been found often to contain a high proportion of acetaldehyd. The "ranker," the liquor, the higher the aldehyd content. (Jour. A. M. A.)

Colorless Iodin Preparations.—The so-called colorless iodine preparations do not contain iodine in the free state, but some form of combined iodine, chiefly iodid. For instance, *Tinctura Iodi Decolorata*, N. F., is a solution of sodium iodid and ammonium iodid obtained by mixing iodine and sodium thiosulphate, stronger ammonia water and alcohol. When tincture of iodine is used externally, it is with the view of obtaining the therapeutic action of free iodine. Since the colorless iodine preparations do not contain free iodine, their external use as a substitute for tincture of iodine is irrational. When tincture of iodine is given internally, the free iodine contained in it is converted into iodid before absorption. Therefore, tincture of iodine and the so-called colorless iodine preparations given internally have essentially the same therapeutic effect.

However, if a colorless iodine preparation is to be administered, it would be simpler and more rational to administer sodium iodid. (Jour. A. M. A., Oct. 20, 1923, p. 1383.)

Intarvin.—Because of numerous inquiries, the Council on Pharmacy and Chemistry publishes a preliminary report on Intarvin. The product is marketed by the Intarvin Company, Long Island City, N. Y. Dr. Max Kahn has applied for a patent on it. Many statements have been given the lay press by those interested in the promotion of In-

tarvin, but as yet no publication has appeared in the medical press, except preliminary reports by Kahn. Intarvin is proposed for use in diabetes or in conditions where acidosis occurs. It is a synthetic fat which, it is claimed, can be assimilated by the diabetic without the production of products that causes acidosis, as is the case with ordinary fats when these are consumed by diabetics. Intarvin is stated to be the glyceryl ester of margaric acid admixed with ten or twelve per cent of liquid petrolatum. While the usefulness of Intarvin is curtailed by the discovery of insulin, it should be valuable in planning a diabetic diet if the claims made for it are substantiated. Intarvin is still in the experimental stage and it is unfortunate that so much newspaper notoriety has been given it. Until acceptable evidence is available for its usefulness, palatability and practicability, judgment of its worth must be suspended. (Journal A. M. A., January 5, 1924, p. 51.)

NEW AND NONOFFICIAL REMEDIES

Butesin. — *n*-butyl-para-aminobenzoate. Butesin is the normal butyl ester of 4-aminobenzoic acid. The actions and uses of butesin are similar to those of benzocaine (anesthetin), which is the ethyl ester of 4-aminobenzoic acid (see New and Nonofficial Remedies 1923, p. 41, Anesthetics, Local, Difficultly Soluble). Butesin is used as a dusting powder, either pure or diluted. It may be used in the form of troches, ointment, suppositories or dissolved in a fatty oil. Butesin is a white, crystalline powder, odorless, tasteless, almost insoluble in water, but soluble in alcohol, chloroform, ether and in fatty oils. The Abbott Laboratories, Chicago. (Jour. A. M. A., Nov. 3, 1923, 1523.)

Silver nitrate solution in capsules.—P. D. and Co.—An aqueous solution of silver nitrate contained in capsules composed of beeswax with an inner lining of a hard paraffin. The solution is intended for the prophylaxis of ophthalmia neonatorum in the newborn. The solution is marketed in two

forms: capsules containing 6 minims of a 1 per cent solution, capsules containing 6 minims of a 2 per cent solution. Parke, Davis and Co., Detroit. (Jour. A. M. A., Nov. 24, 1923, p. 1789).

SALIVA INDICATES KIDNEY CONDITION

For some time, physicians have been convinced that the determination of the amount of the substance known as urea which circulates in the blood is a most important test for estimating the ability of the kidneys to get rid of waste matter from the body.

Some time ago, Dr. P. S. Hench and Miss Martha Aldrich of the Mayo Clinic found that urea occurred in the saliva in about the same concentration as in the blood. More recently, they have extended their studies to almost 600 persons, and they have demonstrated definitely that the urea in the saliva closely parallels that in the blood. They have established a figure which represents the normal concentration, from which it is possible to calculate whether or not the amount circulating in the body is abnormal, and, therefore, whether or not the kidneys are functioning efficiently.

There are, of course, many instances in the clinical practice of medicine when it is neither desirable nor simple to withdraw blood from the body, even in the small quantities necessary for chemical determination. Furthermore, the test worked out for determining the urea in the saliva is a simpler test than a similar determination as applied to the blood.—Hygeia.

YOUR TEETH EXERT 175 LBS. PRESSURE IN CHEWING FOOD

To crush between the teeth certain of the foods we eat requires a force of more than 100 pounds.

The average grown person is able to exert 175 pounds pressure in chewing with the molar teeth. Much of the force used is transmitted to the gums.

So says Dr. Arthur D. Black, dean of a university school of dentistry, in the March Hygeia, the popular health journal, in an article on how better health may be gained by caring for the teeth and gums.

Pyorrhea, a disease of the gums, may cause infections of the gallbladder, kidney, appendix, heart tissues, joints and muscles, as well as destroy the gum tissue and cause the teeth to become loose.

To prevent pyorrhea, a person should brush his teeth at least twice a day and remove promptly any food that may have become lodged between the teeth. This frequently requires the use of dental floss.

The next step is to have the teeth examined regularly by a dentist so that he may find some simple method of correcting conditions which permit or cause inflammation of the gum margins.

A RECORD-BREAKING CYST

A woman with an ovarian cyst, reported by Paul E. N. Greeley, Watertown, Ill. (Journal A. M. A., Jan. 19, 1924), weighed 102 pounds less after operation than before. Recovery was uneventful. She had to learn to walk, as her center of gravity was changed. Her normal weight was 100 pounds (45 kg.)

There were 2,945 more deaths and 839 fewer births in Georgia during 1923 than during 1922, and officials of the State Board of Health are unable to explain the death figures as there have been no general epidemic within the past 12 months. The decrease in births is attributed to a large extent to the migration of negroes from the state.

INTERPRETATION OF ABDOMINAL PAIN

When abdominal pain does not point definitely to the cause of the trouble, and when the usual routine examinations, such as test meals, stool examinations, proctoscopy, roentgen-ray, pelvic and genito-urinary exam-

inations, do not prove positively helpful. Henry F. Kramer, Brooklyn (Journal A. M. A., Feb. 23, 1924), has found the following suggestions of assistance: 1. The patient should be required to characterize the pain as to location, kind of pain, time of occurrence, regularity and consistency of its recurrence, the relation to meals, defecation and urination, radiation and what it is relieved by. 2. When the pain is subjectively localized, the patient should be required to indicate with the hand or finger. The patient will usually point with the finger in ulcer, gallbladder and appendix; with the hand across the abdomen, in colon pain. In colitis there is often a general abdominal burning in addition to the colic. In cases in which the area is extensive and indefinite, the focus is generally where the pain first occurred (according to Schmidt). 3. Tender points, superficial or deep, should be searched for. 4. The presence of hyperalgesia should be determined. 5. Tension pain should be elicited by movement of the organs or voluntary movement of the patient. Influence of posture on the pain should be noted. Examination of the abdomen in the knee chest position, or sitting up with body bent forward, as described by Murphy, will aid in the relaxation of the muscles and permit a more intimate palpation of the organs. Flexion of the extended leg on the abdomen while pressure is made over McBurney's point will cause the appendix to be squeezed between the psoas muscle and the examining fingers. The existence of increased tonicity of muscle or exaggerated muscular reflexes over the area affected should be noted. The colon should be inflated with air to bring out tender points or masses.

OBITUARY

Dr. Augusta Moody, prominent retired physician, died at his home in Macon, January 19, 1924. For a number of years Dr. Moody has been in declining health which forced him to retire from active work.

Dr. J. H. Daniel, well-known physician of Hall County, died at his home in Gainesville, January 19, 1924, after a prolonged illness.

Dr. W. F. Walker, a practicing physician in Preston, died at his home after a short illness, January 25, 1924, at the age of 58.

BOOKS RECEIVED

Genito-urinary Diseases and Syphilis, by Henry H. Morton, M. D., F. A. C. S., of the Long Island College Hospital. 5th Edition, revised and enlarged. 328 Illustrations and 38 full page colored plates. 683 Pages. List price, \$10.00.

USEFUL BOOKS FOR THE BUSY PRACTITIONER

In compiling a list of useful books for the busy practitioner we will head our list with "The American Illustrated Medical Dictionary," edited by Dr. W. A. Newman Dorland and published by W. B. Saunders Company. The eleventh revised and enlarged edition of this most valuable work was received by The Journal some time ago. Dr. Dorland is the most competent medical lexicographer in the world today and his crowning achievement is this latest edition of his dictionary. It is much more than a mere "dictionary"—it is an encyclopedia and reference work which no progressive practitioner, whatever his special line of work, can afford to be without. The surgeon will find in it accurate and complete tables and illustrations of arteries, veins, nerves, muscles and operations; the internist will find tables of diseases, signs and symptoms and methods of treatment; the laboratory worker will find compact information about bacteriology, chemistry, serology and all kinds of tests—in fact, no more useful and valuable information could be carried in a single volume of its size. Therefore, The Journal is pleased to give this dictionary first place in its list of "useful books for the busy practitioner."

(To be continued)

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Next Annual Meeting, Augusta, May 7, 8, 9, 1924.

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OPERATIONS UPON THE STOMACH AND DUODENUM WITH ESPECIAL REFERENCE TO THE HORSLEY OPERATION*

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The majority of operations upon the stomach and duodenum are for ulcer and cancer. Cancer of the stomach is rather common, while cancer of the duodenum is rare. Matthew Baillie in 1798 was the first to give an account of gastric ulcer, although some claim that Galen and Celsus knew something about it. Hemorrhage and perforation were reported in the 16th Century.

Cruveilhier 1829 "was the first to raise the gastric ulcer from a curiosity of the autopsy table to the dignity of a definite and recognizable pathological condition." In 1835 he first suggested that cancer came from ulcer. Travers (1817) was the first to record duodenal ulcer. In 1830 Abercrombie also reported a few cases. In 1894 H. P. Dean, of London, did the first successful operation for perforation. In 1900 Wier, of New York, did one. In 1810 Merrem operated upon dogs removing part of the stomach with recovery. In 1876 Gussenbauer and Winiwarter repeated and multiplied these experiments. In the year 1879 on April 9th, Pean, of Paris, removed a part of the stomach for cancer. In 1880 Rydygier did the same. Billroth on February 8, 1881, performed the first successful gastric resection for carcinoma. Wolfier while assistant to Billroth was the first to do gastroenterostomy on September 27, 1887. He used the anterior method. The posterior method was

first suggested by Courvoisier of Basle and Von Hacker of Innsbruck. The first gastroenterostomy for chronic obstruction caused by ulcer was made by Doyen, of Paris, in 1892, and he was the first to recognize gastroenterostomy as a "drainage operation."

The surgery of perforating ulcer of the stomach began with Mikulicz whose first suggestion dates from 1880. "Between the years 1885 and 1893 Mikulicz operated upon 35 cases with 34 deaths. This is to be considered taking into account the early period of the work as the saving of one life rather than the loss of many." (Moynihan).

Billroth, No. 1 is a resection of the pyloric end of the stomach with an end to end anastomosis. Billroth No. 2 is a resection of the stomach with a resection of more or less of the stomach wall, closing the duodenal end and the stomach end and doing a posterior gastroenterostomy. Kocker modified the Billroth No. 2 by attaching the duodenum to the stomach, end to side, first closing the stomach end. Polya after resection of the pyloric end of the stomach closed the duodenal end and did an anastomosis of the stomach to the intestine posteriorly, this was an end to side anastomosis. C. H. Mayo modified the Polya operation by narrowing the stomach opening, and then doing the end to side anastomosis posteriorly. Balfour also modified the Polya operation by doing an anterior instead of a posterior anastomosis. Moynihan does a resection of the pyloric end of the stomach and then divides the intestine and does anastomosis with the stomach end to side anteriorly and then does an anastomosis with the proximal and distal ends of the small intestine and then puts in a feed-

*Read before The Georgia Medical Society (Chatham County Medical Society) March 11, 1924.

ing tube a few inches above this anastomosis. "I have greatly simplified its performance by introducing the anterior no-loop method. The jejunum is brought from the flexure across the transverse colon from left to right and applied to the divided stomach so that the proximal part of the jejunum joins with the greater curvature. This method has been followed in every case since June, 1920." (Moynihan).

Roux also does gastroenterostomy "E-N-Y" with an end to side anastomosis. All these operations doubtless have their places in properly selected cases. I believe the simplest operation which meets the demands should be the operation of choice. The Finney operation is a pyloroplasty which is described as a gastroduodenostomy, and is an excellent operation when the duodenum can be freely mobilized.

Horsley claims that an ulcer in the duodenum is like an ulcer or fissure or fistula in ano and should be treated by the same method—rest.

The steps of the operation are:

1. Select four points—
 - (a) One-inch on duodenum.
 - (b) Two inches on stomach.
 - (c) Put Allis traction forceps midway between these points laterally.
2. Make incision with sharp knife through peritoneal and muscular coats.
3. Cut out the mucosa with the ulcer.
4. If there is a tendency to leakage from the stomach or duodenum put some gauze wrung out in a normal saline solution in duodenum and stomach which should be removed later during the operation.
5. Close up transversely with 3 rows of tanned catgut or No. 1 chromic catgut.
6. Tack some gastrocolic or great omentum over the suture line.

Advantages of the operation:

"1. It removes the obstruction and the pathologic condition and permits the normal resumption of the stomach function.

"2. The ends of the sutured incision are within the stomach wall. The ratio of the

incision should never be less than two parts in the stomach to one in the duodenum. Usually two inches in the stomach and one in the duodenum are sufficient. The anterior stomach wall in the mid-line can readily be pulled over to the first inch of the duodenum. In the Heineke-Mikulicz operation, and also in the upper part of the Finney operation, the ends of the sutured incision are in the scar tissue at the pylorus, while in this operation the ends of the sutured incision are within the healthy stomach wall, and the scar tissue that may remain about the pylorus is approximated, not to other scar tissue, but to healthy stomach wall. Consequently, union should be more satisfactory than where scar tissue is opposed to scar tissue as in the other two types of pyloroplasty.

"3. There is no pouch formation as in the Heineke-Mikulicz operation, in which the center of the incision is at the pylorus. The operation merely changes the shape of the pyloric end of the stomach from a funnel with gradually approaching walls to a rectangle that empties into a funnel with a more obtuse angle.

"4. The parts to be put at rest are the parts most concerned in contraction and relaxation, which are the pylorus and the adjacent portion of the stomach. By making the incision from the duodenum about 2 inches into the stomach this is effected. A long incision into the duodenum does not help in any way.

"5. The function of the pylorus and pyloric end of the stomach is not permanently destroyed. The stomach wall that is brought over acts as a link between the ends of the pyloric sphincter, and, in the course of time (usually a few weeks) the sphincter resumes its action, though, because it has been enlarged, it can not become spastic as it was before the operation.

"6. The operation is simpler than the Finney operation, in which the duodenum has to be mobilized and the posterior and anterior margins of the wound must be sutured separately.

"There is a superficial resemblance between this operation and the Heineke-Mikulicz, because in both operations the pylorus is divided and in both the incision is approximately straight. Here, however, the resemblance ceases, and the differences become marked, for, unlike the Heineke-Mikulicz, the operation described was conceived on the principle of giving temporary physiologic rest to tissues in the pylorus and the pyloric end of the stomach; the incision is longer than in the Heineke-Mikulicz operation; it is differently placed; it extends not more than one inch into the duodenum nor less than two inches into the stomach; it can be considerably prolonged at the stomach end; it gives an excellent view of the pyloric end of the stomach; it requires a rather definite technic to be closed satisfactorily; it does not form a pouch with a constriction fore and aft; it does not approximate scar tissue to scar tissue and an essential part of the operation is the removing or remedying of the pathologic condition by excising the ulcer, obliterating pockets, or incising constricting bands. In addition, the reinforcing with omentum adds security to the sutures, prevents adhesions to surrounding tissues, and counteracts the tendency for the pylorus to become fixed high up under the liver, which sometimes occurs after the Heineke-Mikulicz operation." (Horsley).

Gastroenterostomy will cure 90 per cent of duodenal ulcers. Finney's operation with excision of the ulcer will add 5 per cent. The treatment of the remaining 5 per cent of duodenal ulcers is an open question. Partial gastrectomy of some type with partial duodenectomy is the operation of choice. For ulcer on the lesser curvature, and about 75 per cent of gastric ulcers occur there, the Balfour operation with cautery and with gastroenterostomy will cure 90 per cent. For extensive ulcerations about the pylorus use Billroth No. 2. For ulcers on the body of the stomach use Judd's operations. Billroth 1 and 2, the Polya and the Balfour-Polya methods all have their special fields of usefulness. Each case must be treated on its

merits. The general condition of the patient must be taken into consideration. When there is an obstruction at the pylorus, sometimes it is wise to do a gastroenterostomy first and then later do a resection. (W. J. Mayo).

I wish to report two cases where I used the Horsley operation:

1. A boy 18 years of age, had been having severe hemorrhages from the bowels for more than a year. An X-ray examination was made by Dr. W. A. Cole and he reported that there was probably an ulcer three-fourths of an inch on the duodenal wall. At operation an ulcer was demonstrated and Horsley's operation performed. The patient made an uneventful recovery. He had a strawberry gall bladder which was removed at the same time.

2. A middle-aged man gave a typical history of duodenal ulcer. He had a severe hemorrhage from bowels and stomach February 1, 1924. He barely escaped bleeding to death. He came to the hospital to be built up, after which an X-ray examination was made. An ulcer was suspected three-quarters of an inch from the pyloric ring. At operation the ulcer was very plainly demonstrated. Horsley's operation was done. This patient had an acute dilatation of the stomach but finally made a good recovery. His gall-bladder which was of the strawberry type was removed. I don't think Horsley's operation is suited for all cases, but I do think it was the operation of choice in these cases, because these were bleeding duodenal ulcers, and needed to be excised. When an ulcer bleeds before operation it is reported that about 12 per cent will bleed after; and Moynihan reports one death from a bleeding ulcer, after gastroenterostomy was made. The operation is easy and simple. The convalescence seems to be better.

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An Historical Review. |
| Deaver | 3. Carcinoma of Duodenum. |
| Horsley | 4. A New Operation for Duodenal and Gastric Ulcer. |
| Horsley | 5. Some Underlying Principles of Intestinal and Gastric Surgery. |

THE ACUTE MEDICAL ABDOMEN*

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Whenever a physician is called ten miles into the country at one hour past midnight to see a man rolling upon a bed, suffering with an intense, acute, agonizing abdominal pain, with vomiting, fever, and presenting a board-like belly, that physician is confronted with a diagnostic emergency and as a rule there are only two things that will materially aid him in arriving at an opinion as to what ails that patient and they are the history of the case and the physician's palpating hand. Of these two, I believe the history is the more important and that most of our diagnostic errors result from the lack of a carefully taken history. Probably 90 percent of the acute abdomen in the rural districts are seen first by the general practitioner and the subsequent outcome of the case depends in a large measure upon the opinion that he forms and particularly upon the treatment that he institutes during the first few hours of an acute abdominal pain. We cannot approach a diagnosis of the intra-abdominal disease with anything like the precision that we can in intra-thoracic disease. When we consider the difficulties encountered in accurately diagnosing a chronic condition in the upper abdomen after weeks of constant observation and study we can understand the greater difficulties in diagnosing the acute abdomen, in patients living in the country. It is estimated the 25 per cent of all cases of peritonitis result from ruptured appendices and a ruptured appendix means carelessness on the part of the patient or delay on the part of the doctor, for which the surgeon cannot be blamed. We are inclined to regard all acute abdominal pain as surgical, but of the thirty odd conditions capable of invoking that clinical picture known as the acute abdomen, twenty odd are NON—surgical conditions, and it is my purpose to discuss these non surgical conditions.

First, I would call your attention to the gastric crises of tabes dorsalis, with its sudden onset of pain of a severe character, usually located in the epigastrium and radiating to the neck, back, or behind the sternum, followed by vomiting, pallor, sweating, subnormal temperature, fast pulse and cold extremities—a clinical picture quite suggestive of ruptured peptic ulcer. However, the history of the case which will exclude the symptomatology so characteristic of ulcer, together with a thorough physical examination, in which there is found the Argyll-Robertson pupil, the absence of knee jerks, the locomotor and sensory disturbances and a normal leucocyte count should establish a correct diagnosis and prevent a laparotomy.

It is a known clinical fact that individuals with advanced arterio sclerosis have, from time to time, paroxysmal attacks of acute abdominal pain, usually in the upper abdomen, associated with vomiting and relieved only by morphine or the inhalation of amyl nitrite. These attacks were once regarded as due to embolic closure, obliteration or rupture of a blood vessel, but in the light of more recent post-mortem observation they are looked upon as vascular crisis or spasm because no post-mortem evidence of gross vascular lesion is found. These attacks are referred to by many as abdominal angina and their diagnosis is made by the presence of arterio sclerosis, absence of fever, normal leucocyte count, ophthalmoscopic examination of the retina and the absence of definite signs of intra-abdominal disease and relief obtained by inhalation of amyl nitrite. Many of the transient aphasias, hemiplegias, and monoplegias are probably accounted for in the same way.

Diaphragmatic pleurisy, and particularly pneumonia in children is often ushered in with abdominal pain, general abdominal rigidity, vomiting, fever, leucocytosis, rapid pulse and tenderness in the region of McBurney's point—a clinical picture identical with an acute appendix. An anesthetic, laparotomy and appendectomy is not good treatment for a pneumonia, and this calamity can usually be averted by a few minutes

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study of the chest. There's probably not a hospital in the country that hasn't to its credit (?) one or more appendectomies when the real cause of the trouble was next day discovered to have been due to a pneumonia. As a rule whenever you get a leucocyte count of over 30,000 you can rule out the abdomen as being the cause. One of the most common of the atypical onsets of malaria fever is the acute abdomen—the so-called Algid form of malaria. When a child has an acute belly ache with vomiting and abdominal rigidity it would be foolish to consider malaria as the cause but it would be equally as foolish to not suspect that malaria MIGHT be the cause. When such men as Cabot report three patients having been sent to the operating room in one week's service with the diagnosis of acute appendicitis whereas all three had malaria and were promptly relieved by quinine without a laparotomy, it is worth while to consider malaria as a possibility in these cases. My experience with malaria leads me to believe it can imitate almost any disease and the error of mistaking malaria for some intra-abdominal pathologic condition can be avoided by a few minutes study of the stained blood smear for the malaria plasmodia.

The acute abdomen that occasionally occurs in the course of a hyperthyroidism may be mistaken for an acute appendix or acute infection of the gall bladder or bile ducts and care should be exercised before operating upon these patients as spontaneous recovery is the rule and operation would be dangerous. It seems hardly probable that a careful clinician would overlook a Grave's disease with its tachycardia, exophthalmos, enlarged thyroid and tremor, yet these gastro-intestinal crisis of hyperthyroidism are sometimes mistaken for intra abdominal disease. However, it is to be borne in mind that an individual with hyperthyroidism may become the victim of an acute appendix and the fact that an acute abdomen "bobs up" in the course of a hyperthyroidism we must not assume that it is a gastro-intestinal crisis. There is no fever, no increase in the

leucocyte count and usually diarrhoea in these crisis of hyperthyroidism whereas in an acute appendix for instance, there is fever and leucocytosis and as a rule constipation.

Acute pyelitis, when on the right side, may begin with sudden pain in the abdomen with vomiting, fever, leucocytosis and rigidity in the right half of the abdomen. During the last few months it has been our privilege to see 8 or 10 cases of acute pyelitis that presented a clinical picture so much like an acute appendix that it was only through a microscopic study of the urine that appendicitis could be ruled out. The urine of every patient with the acute abdomen should be subjected to microscopic study, for by neglect of this simple examination diagnostic error is not infrequently made.

Dietl's crisis, in which there is a kink in the ureter with a subsequent piling up of urine into the pelvis of the kidney, may be mistaken for an acute appendix and the severity of the pain and the rigidity sometimes encountered may mislead the examiner. But the absence of fever and leucocytosis and the presence of tenderness and probably a tumor of the kidney region, with radiation of pain down the course of the ureter, should connote a renal rather than an intestinal origin of the pain. The same reasoning applies to renal colic.

Acute hepatoptosis will give rise to a clinical picture so suggestive of gall stone colic that a differential diagnosis is difficult. In a fair number of these cases the onset is sudden with hepatic pain and discomfort in the right hypochondriac region radiating to the right shoulder, with vomiting and sweating. About 85 per cent of these cases are accompanied by jaundice which is due to torsion of the common duct. This condition usually occurs in a general splanchnoptosis and is usually relieved by assuming the recumbent position.

Acute non-suppurative cholecystitis, with its sudden onset of hepatic pain and tenderness, with defensive rigidity of the right

rectus muscle in the upper half of the abdomen, associated with vomiting, fever, moderate increase in the pulse rate and a leucocyte count from 12 to 18,000 is to be differentiated from an acute appendix that lies high up close to the gall bladder. This differentiation is difficult and important, as an acute appendix demands immediate operation and acute non-suppurative cholecystitis is not a surgical disease. In the presence of a tumor this differentiation should be made possible by the round edge of the tumor projecting upwards in appendicitis and downwards in cholecystitis. Trans-duodenal drainage of the gall bladder and bile ducts, after relaxation of Addi's sphincter by a solution of magnesium sulphate, enables a bacteriologic and microscopic examination of the bile to be made and promises a good addition to diagnostic methods.

Acute abdominal pain, vomiting, general muscular rigidity of the abdomen, fever and leucocytosis are all quite consistent with the diagnosis of acute gastro-enteritis and this condition should always be borne in mind when this clinical picture appears. The season of occurrence, the history of dietary indiscretion, the presence of diarrhoea and the character of the stools and the vomitus should confirm one's suspicion of acute gastro-enteritis which, in my experience, is the most common cause of the acute abdomen.

Acute dilatation of the stomach, with its sudden onset of epigastric distention and pain, with nausea, copious vomiting, early collapse, sub-normal temperature, fast pulse and scanty urine is not to be mistaken for an acute obstruction which it very closely resembles. In acute gastric dilatation the vomiting is never fecal and the condition is usually relieved by assuming the knee-elbow position or by the stomach tube or by pituitrin.

Mucous colitis is characterized by acute exacerbations in which there is abdominal pain and tenderness and at times stiffening of the abdominal wall in the region corre-

sponding to the part of the colon under greatest tension. At times there is nausea, vomiting, transitory fever and moderate leucocytosis. This, especially when the findings are most prominent on the region of the caecum or ascending colon, bear a marked resemblance to a mild attack of acute appendicitis or a recrudescence of a chronic appendix. The diagnosis is made by the history of the case and the character of the stools.

I have seen an acute hydramnios cause a sudden, intense pain in the lower abdomen, with distention, tenderness and rigidity, followed immediately by collapse with fast pulse, sub-normal temperature, etc., and suggest an internal hemorrhage very much; a clinical picture identical with ruptured ectopic pregnancy. The diagnosis, of course, was cleared by bi-manual pelvic examination.

I have seen a beginning mitral stenosis, before the right auricle had dilated and hypertrophied sufficient to compensate for the extra amount of work, when there was a subsequent accumulation of blood in the hepatic vessels and their tributaries, cause such intense epigastric pain that the patient rolled upon the bed in agony. This condition presented a symptomatology very much like peptic ulcer, for which it was mistaken and operation advised. The condition, of course, relieved itself just as soon as the right auricle hypertrophied sufficiently to carry on its extra amount of work.

Acute salpingitis will present a picture so much like a twisted pedicle cyst that a differential diagnosis is here difficult, as there is not infrequently an acute infection added to the torsion of a cyst. Immediate operation is demanded in torsion of a cyst whereas in acute salpingitis operation is usually to be deferred. Bi-manual pelvic examination reveals an immobile mass in salpingitis whereas the mass is movable in torsion of a cyst. The same thing applies to pedunculated fibroids. Salpingitis is also to be differentiated from acute diverticulitis.

Cholelithiasis, or biliary colic, usually begins abruptly with severe pain in the region of the gall bladder, radiating to the right shoulder or neck, with vomiting, fever, sweating, circulatory depression and tenderness in the right hypochondriac region. Occasionally there is jaundice. Although this is the picture of the typical attack, it is to be remembered that typical colics are few. Any condition that comes on abruptly, requires morphine for the relief of pain and leaves the abdomen tender for several days cannot be explained by "acute indigestion" or "ptomaine poisoning" and it is amazingly surprising how frequently these diagnoses are still made.

Phosphorus poisoning may resemble acute abdominal disease and deserves mention. Phosphorus may be taken with suicidal intent, rat paste or match heads eaten by children, etc. Often it is impossible to obtain a clear history, as for example when a child has intense abdominal pain, vomiting and the doctor finds abdominal rigidity and the child very sick, and the mother cannot say definitely that the child has swallowed anything poisonous the physician must make a quick diagnosis. A laparotomy would be a bad treatment. The odor of phosphorus in the vomitus, its luminous quality in the dark, etc., should put the physician on the right track. After 48 to 72 hours there is splenic and hepatic enlargement, hemorrhages and soon, death.

Plumbism is occasionally encountered in painters, printers, those who drink water which flows through lead pipes, those who use hair dyes in which lead is incorporated, etc. Plumbism gives rise to the acute abdomen, but without fever and leucocytosis and the diagnostic criteria are (1) the colic (2) lead line on gums (3) stippling of red blood cells and later (4) wrist drop and foot drop.

X-RAY AS AN ADVANCE IN THE TREATMENT OF IMPAIRED HEARING*

(A Preliminary Study)

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Impaired hearing represents a medico-economic entity of vast proportions. It is a condition responsible for much disability; and, unfortunately, it has hitherto largely defied the skill of the otologic practitioner. Many expedients have been introduced from time to time, new modes of treatment, purporting to afford greater benefits than those derived from the generally recognized measures which have established themselves as orthodox; but the remorseless test of clinical experience has served only to eliminate, gradually but surely, each and all of these ephemeral innovations.

I hope I am not altogether unmindful of this sobering fact, as I undertake to present, for your considerations today, certain findings which at present can claim nothing better than an empirical status. It would be overhasty however, to regard such empirical findings wholly with contempt. For all scientific theory and analysis, while it steadfastly sets before itself the goal of an explanation in ultimate terms, has and can have no other starting point than just such isolated and empirical items of information. Empirical knowledge that has been carefully verified, that has passed the test of practical utility, has a meaning and a suggestiveness which no progressive scientist can afford to ignore.

I.

Better to understand the discussion that follows, it will perhaps be useful to restate the concept of deafness, with a view to emphasizing an aspect which is often relatively neglected in clinical practice. Hearing, as a sensory function is conditioned by two readily distinguishable sets of factors within the organism. The first comprises a peripheral group of anatomical structures that in their totality form the receiving and conducting mechanism for the sound stimuli

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that reach the organism from the environment. The diseases ordinarily affecting this mechanism are familiar to the profession. The pathological conditions to which it is subject have been adequately described in many excellent treatises. It is these diseases against which our orthodox methods of treatment have been mainly directed; and in so far as they have proved to be the chief responsible factors, and in proportion as trained skill has been available for their correction, a relatively satisfactory degree of success has been achieved. But considering the large number of cases treated, the instances in which success has been achieved have proved disappointingly few.

The second set of factors, which I have come to regard as in many cases the more important, comprises the mechanism of the auditory nerve, the cortical centers associated therewith in the superior-temporal convolutions and elsewhere, together with all the known and unknown conditions of efficient transmission and registration in these structures. It is a curious fact, which may or may not have some bearing upon our problem, that the auditory nerve differs from the optic and the olfactory nerve, in having a peripheral as well as a central origin. Both the optic and the olfactory nerves represent direct processes from the brain, while the auditory nerve is the sensory-dorsal branch of a spinal-cranial nerve, the motorventral branch of which controls the facial muscles. Thus the auditory nerve originates in part also from the cells of the head-plate, that is, the fibrous layer of the skin; an origin which is shared also by the membranous, cartilaginous and bony coverings of the ear labyrinth. Moreover, in fishes, and in the other lower forms of vertebrates, no special apparatus exists for the conveyance of sound and no external and middle ear, but only a labyrinth situated within the skull. These considerations may at any rate serve to suggest that perhaps there are special reasons in the case of the hearing function, over and above those which apply to all the senses alike, for emphasizing the importance of the

neural and associated cortical mechanism, and for avoiding if possible a mode of treatment which too narrowly focuses its attention upon the anatomical and histological perfection of the receiving mechanism.

Impaired hearing, therefore, involves a two-fold pathology:

(a) Histo-pathological changes in any part of the structures to the initial reception and conduction of the sound stimuli;

(b) Ultra-histological changes, possibly, affecting the biophysical integrity of the neural and cortical mechanism which is the final condition of a conscious interpretation of these sound stimuli by the organism.

II.

An individual presenting himself for examination and treatment directed to a condition of deafness should, generally speaking, be submitted to an established routine that will insure a reasonably accurate survey and appraisal of his auditory sensibility. Various acoumeters, such as the Pollitzer, Barret or Baranay noise apparatus. While valuable as limited diagnostic criteria, these measures of hearing acumen, owing to their artificial character and their failure to reproduce all the concrete conditions of the normal hearing function, are somewhat inadequate as practical tests, and though they are taught as a part of the otologic curriculum, it is the general opinion of practitioners that they fail to meet their full needs. Perhaps the best single test from the view-point of simplicity and desirability, is the distance measure of the perception of the spoken and whispered voice. The voice, however, is difficult to standardize; the many methods which have been proposed for this purpose have been failures: fortunately, the problem does not have to be solved with absolute mechanical precision. A skilled otologist can usually control his whispered and spoken voice with sufficient approximate accuracy to determine whether the hearing of a subject has materially improved. And what is still more important, the pa-

tient is thoroughly cognizant of the many voices among his acquaintances that he understands; so that he notes quickly any real progress made by the treatment, promptly observing that more conversation is correctly perceived and interpreted.

Following this quantitative survey of the patient's audition, the sound receiving and sound conducting apparatus is inspected with appropriate thoroughness. Anatomical deviations are noted; histopathological changes are inquired into; and on the basis of this examination, the indicated corrective procedure, as approved and established by the experience of the profession, is utilized to the fullest extent, in the effort to restore normal conditions. An integral part of the examination-routine should include the making of an X-Ray plate, and a survey of the paranasal sinuses and mastoids; for pathology in these hidden recesses quite often sponsors a deaf condition that is promptly relieved when adequate attention is devoted to paranasal or mastoid aberrancy.

As the result of such routine examinations, and the conscientious use of the indicated appropriate therapeutic interventions, a very small number of deaf persons are materially benefited. But regardless of the character of the pristine etiologic pathology, the impaired hearing of many is virtually unimproved.

In the course of the systematic examination of patients, it has for years been my custom to include in all appropriate instances a complete radiographic examination of the paranasal sinuses and mastoids. It frequently happened after one of these radiographic surveys that patients would volunteer the information that their impaired hearing, which was not the trouble that brought them to my care in the first place, had been markedly relieved; and they asked if it were a property of X-Rays to correct deafness. A search of the literature brought to light some studies by Jaulin, Ortloff and Siebenmann. These workers, experimenting independently of one another, had come to the conclusion that X-Rays benefit deaf individuals. These studies are un-

fortunately incomplete, and convey inadequate information as to the quantity and quality of the radiation used, or of the best method of applying it; so that their contributions served only to confirm my empirically derived impression, that the casually observed relation between the submission to X-Ray exposures and the improvement of impaired hearing bore a deep significance, worthy of serious study and investigation.

In this country many have exposed nerve and brain structures to the X-Ray; but owing to the very slight changes in the issues revealed by microscopic examination afterwards, they have generally arrived at the conclusion that X-Rays are without effect, or exert at most a minimal effect, upon nerve elements. Nevertheless, careful inquiry revealed that roentgenologists have often been informed of certain visual and auditory "aura" experienced by the patient undergoing radiographic exposure of the head, a report which has not infrequently been confirmed in my own experience. From which it was natural to infer that roentgenization of the auditory brain center might be essayed with some hope of results.

Electromagnetic wave lengths of a range of frequencies including visible light, ultra violet radiation, X-Radiation, ultra-X-Radiation and radium emanation, cause the emission of electrons from metallic surfaces upon which they impinge. And yet the changes so induced are not revealed to chemical or microscopical investigation, but must be measured by very special physico-chemical methods. Now this phenomenon, known as photo-electricity, offers us an analogy which is strikingly significant for our purpose. In 1818 Von Grothhus propounded the law, applicable to all these phenomena, that "only the energy that is absorbed can do chemical work." In spite of the fact that the chemical work done by such absorbed energy cannot always prevail microscopically, the modern science of photo-electricity enables us to deduce and defend the converse of Von Grothus' law, namely, that all the energy that is absorbed does physico-chemical work. Moreover, I think we are justified in seeking

its application to the phenomena of deafness.

From the viewpoint of the otologist, the clinical deduction is of paramount interest. The projection of X-Radiation into the structures of the body must lead to the performance of physico-chemical work in proportion as the energy is absorbed. That the results cannot be measured by our present methods of clinical investigation in no way vitiates the certainty of this scientific fact. And in proportion as means for detecting photo-electric effects in the tissues are evolved, so will our concrete and detailed conceptions of the possibilities of radiation-therapy expand to include this newly revealed phenomenon.

Convinced therefore that X-Radiation affects nerve structures no less than it affects, photo-electrically, other structures, I began to use the X-Ray treatment in my practice; and with a view to safe-guarding such patients as had first to come within the purview of my experiments, I used very mild doses, directing the radiation to the auditory center on each side. By a mild dose I mean a low voltage equivalent to about 4 inches of spark gap, or 50 kilovolts; and a low milliamperage, about 8 milliamperes. There is in all probability no need for any great quantity of energy, for, Lenard early proved, the photo-electric energy of the ejection of the corpuscle is wholly independent of the intensity of the energy causing the ejection.

At the very beginning, the results were gratifying. Regardless of the character of the initial pathology provoking the deafness, many patients, who had failed to respond to the use of other methods, found their hearing acumen positively improved under the new treatment. It was soon found that the radiation could be directed practically anywhere on the head in about the quantity described, with the same betterment of hearing, clinically; a fact which suggested that the therapeutic effects noted might not be depended exclusively upon the stimulation of the auditory nerve center; but that possibly the nerve itself, as well as the associated neural and non-neural tissues might be

subject to the stimulating influences of the rays.

The method, then, consists of the gentle irradiation of the head from four angles, focussing, for the sake of conveniences, upon the sella turcica. First, through the temporal region on the right, directing the central ray one inch in front and one inch above the external auditory meatus; second, over the occipital protuberance, with the head inclined forward; third, the left temporal region in the same manner as the right; and, finally, through the anterior fontanelle, the head inclined backward. It has seemed to me to be important to keep the quantity of energy used constant and non-fluctuating, and that the best results are insured with the use of a carefully stabilized current.

Whenever examination discloses the presence of anatomical pathology, as for example the lymphatic hyperplasia that accompanies some cases of Eustachian and middle ear inflammation, it seems best to use, in addition to the small photo-electric dosage already mentioned, a heavier dosage such as is known to reduce hyperplastic tissues. These applications are proportioned to the extent of the anatomical pathology revealed, and are repeated only at sparse intervals.

III.

I need scarcely say that the X-Ray treatment here described must be regarded as purely adjuvant. Any discernible and corrigible anatomic or pathologic defect should, of course, receive all possible clinical aid. But when this has been done, my experience, covering about 600 cases with approximately 10,000 exposures, indicates that the X-Ray treatment challenges the attention of the progressive otologist. In all of my cases, no harmful or untoward effects have ever appeared. I shall proceed to note some of the more striking of the observations that have attracted my attention:

a. I cannot discover that the original pathology plays any obviously determining role with respect to the efficiency of the treatment.

b. Improvement, when it occurs, is either astonishingly immediate, or is for some

time latent, becoming apparent only after several treatments.

c. Improvement is at times followed by relapse, which has not in my experience ever reached the low level of the original deafness. The gain is apparently a progressive series of steps.

d. Improvement is most usually manifested in an increased power to interpret the conversational voice; next for music in its various orchestral forms; lastly for metallic sounds, such as the ringing of church bells, telephone bells, and similar previously undetected sounds. Occasionally a patient will show increased acuity for everything except the voice, a situation quickly recognized by the tuning fork and acoumeter tests.

e. The most striking subjective betterment is the very general disappearance of tinnitus aurium. This is most pleasing to the patient, as it is the first symptom, and a most distressing one, which is dispelled. There are cases, however, in which the tinnitus is not materially decreased, and in an exceptionally few instances there are complaints of increased head noises.

f. My present records show improvement, varying from slight degree to a complete cure, in not less than 60 per cent of the cases treated, which must be regarded as a gratifying result.

g. The treatment is entirely free from any harm to the patient.

Of course, my findings are perforce empiric. But it is a dominantly great truth of scientific evolution that empiricism is forcibly and eternally dynamic.

I offer you my research not for any intrinsic merit of the hypothetical theory that it may contain; but with the trust that you essay it in terms of trial and error in the crucible of the clinic where every measure, introduced into medicine or surgery, must inevitably conform to that ancient formula,—*curare, cito, tube et jucunde*,—to cure quickly, safely and pleasantly.

SOME REMARKS CONCERNING THE PROPER USE OF NON-SURGICAL GALL-TRACT DRAINAGE

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The procedure known as non-surgical drainage of the gall-tract has been before the medical profession nearly five years. While it has by no means met with a general spirit of approval, there are many who conscientiously believe that it possesses potentialities for diagnostic and therapeutic aid, and really constitutes a worthy advance in our efforts to diagnose and control certain conditions arising from a pathologic gall-tract. The writer bases these remarks upon an experience of more than twenty-eight hundred duodeno-biliary drainages, and feels that his opinion deserves a certain amount of consideration.

In order to properly evaluate any procedure, the therapeutic use of such a procedure should presuppose: First, that the proper cases should be selected, and secondly, that the procedure should be carried out in a thorough and skillful manner. That neither of these conditions have been fulfilled in many instances has wrought much harm in the minds of both the medical and lay public. The writer will, therefore, endeavor to briefly describe a number of the conditions in which non-surgical drainage will probably afford either a mitigation of certain symptoms, or a cure of certain diseased states.

First: A chronic cholecystitis, or choledochitis, as indicated by flatulence, dyspepsia, a "muddy skin," lack of appetite, constipation, and malaria. Such a syndrome is known under the comprehensive term of "biliousness," which is used for lack of a better word. Many of these patients have associated troubles, as chronic appendicitis, gastric or duodenal erosions, pericholecystic adhesions, etc., which gall-tract drainage can not cure; but that part of the pathologic picture depending upon a cholecystitis, or a choledochitis, generally promptly yields to such treatment.

Second: Biliary stasis, with chronic infection of the gall-bladder following malaria, typhoid, influenza, or constipation, where such cases have gall-bladder infection, are proper cases for this procedure.

Third: Sick headache cases are either greatly aided or practically relieved by this method, though in cases of long standing many drainages will be required. To relieve one of these slaves to migraine, and to put such a person back into the channel of normal living and normal achievement—this alone would stamp non-surgical drainage as worth while.

Fourth: Some forms of asthma, where the sensitization tests have not worked out satisfactorily, or where it is probable that the cause of this asthma abides in an infected gall-tract, will give startlingly good results from this procedure. Most asthmatics are nearly desperate, and it can do no harm to try this, even though a certain percentage will yield no results.

Fifth: As an adjunct to other measures, it is worth while in infectious joint troubles.

Sixth: Chronic catarrhal jaundice, where there is no material obstruction, such as a large stone in the common duct, or a hydrops, interfering. Many of these cases yield brilliant results, and in a few, the writer believes that the ejection of small gall-stones has been accomplished. In thirty cases of such jaundice both the patients and the writer felt that material results were attained, and the jaundice cleared up much more quickly than by other measures.

Seventh: Patients with gall-stones can be made much more comfortable by several drainages before having the stones removed. These patients will also find it helpful to have several drainages a few months after the operation. The writer has had a number of such cases, all of whom seemed appreciative of the comfort derived both before and after the operation.

Eighth: The writer believes that this procedure would be in order as a pre-operative measure in practically all of the operations upon the gall-tract, though he has been unable, so far, to obtain much co-operation along this line from the surgeons.

Ninth: Patients who have had surgical

gall-tract drainage without relief by this method. The writer has a number of cases on record in whom surgical measures failed to give relief, but who seem to have attained perfect health after a number of drainages.

Tenth: Patients with gall-tract disease, where surgery is indicated, but for various reasons is found inexpedient. Such cases can often obtain much amelioration of disagreeable or painful symptoms with no risk. The writer has had a number of aged individuals, with certain diseases which entirely precluded surgery, though it would have been desired under favorable conditions, and in nearly every instance, gall-tract drainage has been found worth while.

The assumption that this method will remove gall-stones, will break up adhesions, will cure appendicitis, or cancer of the liver, or remove deep seated organic pathology of the gall-bladder and ducts, is ridiculous, and the patients should be plainly so informed. In a number of instances the writer has been placed in an embarrassing position by having referred to him, by enthusiastic protagonists, cases which non-surgical drainage could not hope to touch or benefit in any way.

Furthermore, in the opinion of the writer, no physician should use this method unless he goes into it wholeheartedly, performing it in a technically correct manner, and is willing to persevere in his efforts, regardless of either active opposition from many of his confreres, whose approbation he desires, or those who would "damn it with faint praise."

While neither the principle nor practice of non-surgical gall-tract drainage is accepted by a multitude of conscientious physicians, on the other hand, a multitude, who are employing it are getting satisfactory results.

In conclusion, the writer wishes to express an earnest belief that this procedure will continue to enjoy a wider and wider acceptance among the medical profession, as its real value is better understood, and its limitations more definitely fixed; and that it will eventually reach a proper and accepted place as a recognized therapeutic procedure.

REPORT OF A CASE OF TUBERCULOSIS OF THE PAMPINIFORM PLEXUS*

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It is my purpose to present to you briefly the clinical story and subsequent pathological findings in a case of tuberculosis of the pampiniform plexus.

My attention was called to this case some several months ago by Dr. Quinby at the Peter Bent Brigham Hospital and he has very kindly asked me to report it to you.

The literature upon tuberculosis of peripheral blood vessels is quite sparse and I have not been able to find a reported case of this particular type. There is little information one can obtain from pathological text books or treatises upon tuberculosis in its varied aspects. This, too, was the observation of Dr. Wolbach; as a matter of fact he would hardly believe that such a condition as this one, about to be presented, existed until he saw the sections.

The patient in whom this occurred is a Russian Jew of forty years of age who entered the hospital for the first time in January, 1920 complaining of a swelling in the upper portion of the left scrotum. His general health had always been good, his family and past histories were unimportant.

For the past ten or fifteen years he had noticed a hard, nodular swelling in the upper left scrotum but was uncertain as to its exact time of appearance. It had gradually grown larger and caused him a certain amount of discomfort with an occasional dragging sensation in the region of the left scrotum. It troubled him especially when he had been standing for a long time in one position, producing a mild pain of a burning character. There was no previous history of trauma, venereal disease suggestive of tuberculous or pyogenic infection of the urinary or genital tract.

Physical examination was unessential except for a very hard, clearly defined, irregular, triangular shaped swelling in the upper scrotum entirely separate from the test-

icle (left) or the epididymis and apparently having no connection with it. It took the shape and position of a dilatation of the pampiniform plexus. The cord above this area was normal. His urinary and blood studies were normal. In an attempt to find, if possible, a primary focus of entry roentgenological studies of his chest together with plates of his kidneys, ureters and bladder showed nothing remarkable. Prostrate was normal.

A diagnosis of thrombosis and calcification of portion of the veins of the pampiniform plexus was made and he was subjected to surgical treatment.

Dr. O'Connor's operative note states that the spermatic cord and anterior pampiniform veins were normal and that the area palpated was in the pampiniform plexus just above the upper pole of the epididymis.

The patient made an uneventful post-operative recovery and was discharged on the twelfth day following operation. He re-entered the hospital in August, 1921 for pruritus, at which time an alcohol injection was given without much improvement. He was discharged to enter the hospital later for the third time November, 1921 having been advised to do so because of the pathological findings subsequent to his operation one year previously and also because of a persistent dull discomfort in the left testicular region. It was thought wise that the left epididymis and a portion of the vas deferens be removed with the purpose of discovering, if possible, whether there was a primary tuberculous focus there.

At operation the epididymis and lower vas deferens were removed but nothing remarkable was noted; there was considerable scar tissue resulting from the previous operation. He again made an uneventful post-operative recovery and was discharged on the 10th day post-operative.

Pathological report of the original specimen showed it to consist of a piece of fibrous tissue measuring 3x2x1 cm. which the pathologist states "is quite firm and studded with small hard nodules." "On section the tissue is white in color, rather opaque;

*Read before the New England Branch of the American Urological Association—Boston, Feb. 14th, 1923.

resembling scar tissue and studded with yellowish, firm nodules, varying from one-half to 2 m.m. in diameter. These are apparently small veins which have become thrombosed. A few definitely thrombosed veins are seen which have thickened walls and lumens filled with a more fibrous appearing tissue. Microscopically there is fibrous tissue which shows infiltration with epithelioid cells and lymphocytes. A few small patches of caseation and a number of giant cells are noted. In this fibrous tissue is embedded a large number of thrombosed and obliterated veins whose walls are thickened. The tuberculous granulation tissue is present in both the thrombi and walls of these veins. It does not completely obliterate the vein in all cases and there is evidence of canalization. There are many small capillaries all through the tissue which are not thrombosed."

Dr. Goodpasture made a diagnosis of tuberculous phlebitis. Subsequently numerous sections were stained for tubercle bacilli according to the method of Mallory but none could be demonstrated.

As regards pathological report of the vas deferens and epididymis it is sufficient to say that the pathologist, knowing the nature of the material removed at the first operation, questioned whether the epididymis and vas had not been removed from the opposite side because of its normality.

As I have said before very little can be found in the literature upon this subject. McCallum, however, states that "the usual method of distribution through the blood stream is the result of an erosion through the wall of a blood vessel" and further "that it is true that actual tuberculous lesions are sometimes formed inside the vessels, but this is rare, while the extension of a caseating process through the wall of a vein or artery, so that the bacilli are shed into the passing stream is extremely common," also, that "infection of the genito-urinary tract is practically limited to deposition there of bacilli brought into the blood stream."

"When only a few bacilli are in the circulation the development of a tuberculous fo-

cus depends in some degree upon favorable conditions in an organ and we find that the kidney, epididymis and sometimes the Fallopian tubes are the most susceptible to the infection. It is in them that the oldest lesions are found and it is from these primary foci that bacilli spread to infect the rest of the genito-urinary tract."

Mallory sums up lesions of the blood vessels in a few words. He says "they are common in the capillaries and lead to complete occlusion of them."

It is striking in this case that capillaries show the greatest degree of normality. We felt that the epididymis or vas might show evidence of tuberculosis since it occurs comparatively frequently, although there were no striking symptoms present to indicate it.

To summarize we have here granulation tissue definitely of the tuberculous type occurring in the veins of the spermatic cord with a limited peri-vascular reaction, not involving the epididymis or vas deferens. It is presumably a condition resulting from tubercle bacilli free in small numbers in the blood stream which for some reason were harbored upon the walls of the veins, resulting in a typical tuberculous reaction. We are uncertain of the focus of entry.

Perhaps we might theorize by saying that the veins of the pampiniform plexus, because of their tortuosity, especially in cases with moderate varicocele, would predispose to the lodgement there of organisms.

A PATIENT'S PLEA

You are my physician. I come to you because I believe in you; in your ability and your honesty. I believe that in coming to you I will get the best that money can buy in skill and purity of drugs. Not being acquainted with medical matters, I put myself in your hands, relying upon your judgment and your fairness to give me only the best and the most efficient treatment.

I am the patient, but I believe that you will do unto me as you would have others do unto you if you were the patient.

ACUTE ALIMENTARY DISTURBANCES IN CHILDREN*

Thomas D. Walker, Jr., M. D.,
Macon, Ga.

John Burroughs once said something which is epigrammatic in its forcefulness and is appropriate on this occasion, i. e. that we must never forget that we are built up around a gut. That is certainly true with the child, for the "gut" is responsible for the great majority of disturbances, both acute and chronic, in childhood.

Chronic conditions, due to an intestinal origin, such as intestinal indigestion, anaemia, malnutrition, etc. we will not have time to discuss, but it is the acute conditions which I wish briefly to discuss with you.

The classifications of acute alimentary disturbances or diarrheas in infancy and childhood founded as they have been upon pathological and anatomical data, have confused thought and provided therapeutic procedures not justified.

Repeated autopsies have shown that only in infectious conditions of the intestines, and this constitutes the minor number of cases seen, are there definite changes in the intestinal mucosa.

Therefore, to attempt to express what is taking place pathologically in the bowel by referring to the anatomical divisions of the bowel, is wrong, so the terms gastro-enteritis, ileo-colitis, etc., are obsolete, for there is no symptom complex characteristic of the portion of bowel which is supposed to be involved.

The cause of the majority of diarrhea lies in the intestinal contents and not in the intestinal wall.

Etiologically then, the situation may be more intelligently considered. In the intestines at all times there are food and bacteria. Bacteria require pabulum, for their growth. Food provides that pabulum, and the kind of food will determine the type of bacteria present. If there is an excessive amount of acid producing food, such as carbohydrates, and fats, the intestinal flora will be largely acid producing bacteria. If the excess food should be proteid, putrefactive

bacteria will predominate. "Thus, there exist a certain form of symbiotic activity between food and bacteria, and this activity seems to be the responsible factor determining intestinal normality or abnormality." So that explains why there may be a "proteid intolerance," "carbohydrate intolerance", or "fat intolerance". Thus it becomes clear that the exciting factor lies not within the intestinal wall, but within the intestinal contents, as previously stated, and it seems logical to assume that by means of an intelligent application of diet, we possess the most effective means of treating acute alimentary disturbances.

Therefore, to think of the cause of an alimentary disturbance from the etiological standpoint, such as a fermentative diarrhea, or putrefactive diarrhea, or infectious diarrhea, points the way to treatment more clearly than if the obsolete terms gastro-enteritis, ileo-colitis etc. were used.

However, we must not assume that only a putrefactive or fermentative condition exists, by reason of the mere presence of an excess of any particular food element in the stool. Anything that increases peristalsis to the point of causing diarrhea, interferes with the digestion of all food elements, and hurries them through the intestinal canal. The outstanding clinical symptoms though will definitely classify the diarrhea. For instance, in a fermentative diarrhea, the stools will be acid, sour, foamy; there will be chafing with more or less gas. In a putrefactive diarrhea the stools are alkaline, very offensive, no chafing. In an infectious diarrhea, there is mucus, blood, fever, or the usual symptoms of dysentery.

Treatment

Therapeutically, therefore, more information is obtained from the study of the reaction of the stool to litmus paper than from its microscopic or macroscopic appearance. After all the matter of food tolerance is a matter of individual resistance, and is not determined by fixed academic percentage of particular ingredients.

Excessive alkalinity would indicate that cure would be accomplished by the with-

drawal of protein and the feeding of carbohydrate.

Excessive acidity, by far the most common, indicates the withdrawal of carbohydrate and fats and giving protein food. This is the indication for buttermilk, Finkelsten's milk, albumin milk, Casec and all other protein milks on the market.

The question of purgation must be decided in each case. If there is no nausea, castor oil will be sufficient. If nausea be present, then calomel should be given. If the bowels are acting frequently and prostration is present, no purgative should be given. Whether purgation is given or not, the following twenty-four hours of starvation is very important. By starvation, though, is not meant the withholding of water and causing dehydration. Water may be given plain, or as rice-water, or barley-water. At the end of 24 to 48 hours you can determine the character of the bowel condition and order the feeding accordingly.

As to drugs, that doesn't make much difference; bismuth subnitrate, bismuth subgallate, Fullers Earth, calcium carbonate, chalk mixture, opiates and practically every other known drug has been used to check a "running off". The greatest effect from a drug is not the coating over of the bowel, but the alkalizing of the intestinal contents, and lessening peristalsis.

Irrigations

This is only indicated when blood and mucus are present in the stools. The purpose of an irrigation is to lessen the tenesmus or to lessen the blood in the stools, lessen the frequency of the stools and make the patient more comfortable.

If they do not do one or more of those things they should not be given

Hydrotherapy

In my experience, bathing to reduce a temperature is unsatisfactory in the home, so I give phenacetin, grains $\frac{1}{2}$ to 2, depending upon the age and indication. I have never seen any harmful effect.

Feeding

I want to caution against the giving of gruels and broths too long and the withholding of milk. After a few days on cereal

waters you will have an indication from the clinical symptoms as to what the feeding should be.

If an acid condition is present, give skimmed diluted boiled milk, depending upon the age, with Casec added.

As the stools become less frequent and more normal, increase the milk and decrease the water and Casec.

If a putrefactive condition exists, buttermilk, preferably lactic acid milk is indicated.

In an infectious diarrhea it is not so much a question as to the particular kind of food that is given, as it is the amount of food and fluid that is given, for such a condition is going to run a course, somewhat like typhoid fever, and maintaining body fluids and nutrition is the greatest factor in the recovery of the patient.

To Summarize

1st. Purgation, but do this with moderation.

2nd. Starvation, for 12 to 24 hours, but not dehydration.

3rd. Food in small amounts, as indicated by the type of diarrhea, to be slowly increased as symptoms will warrant, for you want to avoid as much as possible loss in weight.

4th Medication. Use your favorite prescription, but think of diet more than medicine. There is, though, a definite indication for opiates in the tenesmus and pain in an infectious diarrhea.

5th. Dehydration and demineralization should be avoided by giving fluids; by mouth, subcutaneously, or intra-peritoneally, and the giving of alkalis.

6th. Acidosis is a secondary condition and is more dependent upon dehydration than any other one factor so the surest means of preventing it does not lie in the giving of soda but in the giving of water and glucose either by mouth, intravenously, or intra-peritonally. By mouth, a dram of glucose an hour until an ounce is given is sufficient for each 24 hours. In the vein or abdomen, 2 to 6 ounces of a 5 per cent solution of glucose, repeated every 6 to 8 hours, is usually sufficient.

SOME PHASES OF DIABETES MELLITUS*

Pratt Cheek, M. D.,
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"The nature of the disease then is chronic and it takes a long period to form; but the patient is short lived, if the constitution of the disease be completely established; for the melting is rapid; the death speedy. Moreover, life is disgusting and painful; thirst unquenchable; excessive drinking which, however, is disproportionate to the larger quantity of urine, for more urine is passed; and one cannot stop them either from drinking or making water. Or if for a time they abstain from drinking their mouths become parched and their bodies dry; the viscera seems as if scorched up; they are affected with nausea, restlessness and a burning thirst; and at no distant term they expire."

This was written three hundred years B. C. by Aretaeus, a Cappadocian. Whether this is the first clinical description of diabetes mellitus or not, it certainly is a clear picture and serves to show us that the condition has been recognized for a long time. That its interest is increasing is best testified to by the enormous amount of literature which has arisen, especially since 1914. That its clinical recognition and study are important is shown by the figures of Joslin, which indicates a mortality increase from this disease of 80 per cent between 1900 and 1915 (in the U. S.), whereas there was a decrease in death from all causes.

It has been my good fortune to see during the past 14 months nineteen cases of diabetes and it is my purpose to discuss certain phases of this condition that have interested me most.

Some of these patients were treated in the hospital and received training along the lines of dietetics, personal care and hygiene, examinations of urine, etc. The knowledge acquired by some of them is quite remarkable and I cannot refrain from emphasizing here the importance of having all diabetics, whenever possible, educated in the things

needful for their favorable progress.

Cause: The generally accepted view of the cause of diabetes attributes the disturbance of carbohydrate metabolism to a deficiency in the internal secretion of the pancreas, which, in turn, has its basis in a peculiar degeneration of the cells of the islands of Langerhans. In the vast majority of cases enough functioning pancreatic tissue is left to afford the necessary minimum for carbohydrate metabolism provided the diet is properly adjusted to the weakened function. The nervous system has a profound influence upon carbohydrate metabolism, but doubtless acts through the agency of the pancreas. Thus diabetes has been defined as "a disease of faulty metabolism of such a nature that the system is deprived of the power to utilize carbohydrates in a manner necessary for the maintenance of life." Death ensues from carbohydrate starvation. Opie and Allen expressed the view that sugar is eliminated unchanged in diabetes because the ferment is lacking which normally splits sugar into lactic acid and glyceric-aldehyde.

Treatment: Whether it concerns prophylaxis, palliation or cure, the treatment of diabetes is practically synonymous with its dietetic management. For convenience we will classify diabetes as mild, moderately severe and severe. I shall discuss the severe cases of diabetes as we all know the mild and moderately severe cases, if put on a carbohydrate-free diet (not more than 15 grams) containing a liberal proportion of proteins and fats, promptly lose their glycosuria. In the severe cases the patient does not become sugar-free when placed on a strict diet. On the ferment theory referred to by Opie and Allen I have observed that if you will give a patient a moderate amount of a balanced diet properly selected and arranged in such a way that he will not repeat the same articles of food for one hundred and six hours you can keep him sugar-free after he has been rendered sugar-free.

The only way I can explain why it is better not to repeat the same food is that it prolongs fermentation and enables the sugar to be converted into lactic acid and glyceric-aldehyde and then into products usable by

*Read before the Ninth District Medical Society, Winder, March 19, 1924.

the body. I used the Allen treatment, Joslin treatment and others until about the first of July, 1923, when I began using this so-called non-repeating diet and found it much better. It is easy to calculate the quantity you want your patient to have and this is very important for if he over-loads his stomach with meat, sugar will appear in large quantities. Joslin's method is to give an adult 25 calories of food per kilogram of body weight. Carbohydrates and proteins will yield four calories to one gram. Fats and oils will yield nine calories to one gram. From this it is easy to tell the amount to give a patient. No definite rule can be given for the reason that the tolerating power of different patients for specific forms of carbohydrate varies greatly. For an example the starch of potatoes, rice or oats is sometimes better tolerated than that of wheat. Urinary analysis and the patient's general feeling under a particular diet should determine which is the most suitable form of carbohydrate to use in an individual case. Cane sugar is probably the least assimilable in the majority of cases.

In connection with the diet in severe cases, in order to keep from starving the patient to get him sugar-free, I give insulin for with it one accomplishes in hours what formerly took days. Instead of continuing to starve the already starved, weak and emaciated patient you go ahead with a maintenance diet and he shows improvement and gains weight while becoming sugar-free. The dose of insulin depends entirely upon the condition of the patient. The interval between doses depends upon the condition. I have also found that the reaction of individuals to insulin is not uniform. I have no routine method of giving insulin. I try to make each case a law unto itself.

After the patient becomes sugar-free, I try to keep him sugar-free with diet, unless

he breaks over or has some accident and sugar reappears. In this case I give more insulin. I agree that insulin is a priceless gift and if correctly used helps us to treat diabetes. But some authorities say that in a short time from now the mortality from diabetes will show a sharp rise since in certain quarters it is thought that the problem of diabetes is now solved and all the diabetic needs is some insulin and he can eat and drink what he wishes so far as diabetes is concerned.

It would be tragic if the profession felt and acted this way. It takes only a few minutes to teach a patient how to make a urinalysis and only a short time for a physician to learn how to determine the amount of blood-sugar. A knowledge of diabetic arithmetic is the pivotal point in order to balance the diet and insulin with sufficient accuracy to justify the trouble of the treatment. If the diet overbalances the drug there will be glycosuria and the expense and pains are practically wasted. If the drug over-balances the diet there is likely to be a reaction which is always fraught with alarm; and, finally, if the physician does not know the diet he may lose the confidence of the patient. I believe you should watch the patient closely when giving such a potent drug.

It is necessary to educate your patient to calculate his diet and analyze his urine. This procedure is by no means as difficult as it may appear. Any ordinarily intelligent person can be sufficiently instructed. You will show him results, then he will co-operate with you perfectly, become interested in his treatment and enjoy it like a game. Then the melancholia, depression, irritableness restlessness and impatience will turn into smoothness, quietness, sunshine, cheerfulness, happiness, and he will apparently take a new lease on life.

AN ADEQUATE LABORATORY SERVICE IN THE MODERN HOSPITAL*

By Ward Burdick, M. D., Denver

Secretary of the American Society of
Clinical Pathologists

Mr. Chairman and Members of the American
College of Surgeons:

As the representative of the American Society of Clinical Pathologists, it becomes my privilege to convey the appreciation of your courtesy in extending the privilege of appearing before this Convention for the purpose of expressing views on matters which so mutually concern us.

Upon receipt of the invitation to address this meeting on the subject of "An Adequate Laboratory Service in the Modern Hospital," a communication was directed to Fellows of the American Society of Clinical Pathologists, enclosing a questionnaire covering this subject, and this paper is a digest of the answers received. It has been the endeavor to make it express the net results of the experiences of all of the Fellows of the Society which I represent.

The first question for discussion, it would seem, should be

Personnel

On this matter, there is a striking unanimity of opinion among the clinical pathologists. With reference to the head of the organization, Dr. O. J. West, Seattle, Washington, says: "That all hospital laboratories should be in charge of a clinical pathologist on whom the responsibility for all work should rest." These words express the sentiment of all clinical pathologists from whom replies were received. This brings us to the pertinent question, "What is a clinical pathologist?" At the last Annual Convention of the American Society of Clinical Pathologists the following definition was adopted:

"A clinical pathologist is a physician who has specialized in clinical microscopy, chemistry, serology, bacteriology, pathological histology, and gross mor-

bid anatomy for a period of two years under the direction of a clinical pathologist as herein defined."

Thus, at the outset, we find ourselves at variance with the American College of Surgeons on a very important point. Referring to the tenth Year Book of the College, issued during the present year, on page 53, paragraph V, under the heading of "The Minimum Standard of Hospitals," reads as follows: "That clinical laboratory facilities be available for the study, diagnosis and treatment of patients, these facilities to include at least chemical, bacteriological, serological and histological services in charge of trained technicians." Dr. John Hewat, Director of Laboratories, Department of Health, State of Maine, states, "If a hospital has a fully equipped laboratory capable of undertaking all laboratory procedures, the object of the laboratory is defeated, unless the responsible head is qualified, as defined by the American Society of Clinical Pathologists. The technical part of the work can, perhaps, be left to trained technicians, but a knowledge of the fundamentals of medicine is very essential in the interpretation of the results; therefore, the head of the laboratory should have a Medical Degree." For, says Dr. James C. Todd, Professor of Clinical Pathology, University of Colorado, "It would seem reasonable to ask that all clinical laboratory work of a hospital be done under the direct control of a clinical pathologist, and that there be a definite department of clinical pathology recognized at staff meetings.

"In small hospitals," according to Dr. E. H. Buttles, Mary Fletcher Hospital, Burlington, Vermont, "perhaps under one hundred beds he need not be a full-time man, but should have definite hospital hours." But, insists Dr. Harry Corper, National Jewish Hospital for Consumptives, Denver, "Every hospital of one hundred bed capacity should have a full-time resident clinical pathologist, with an appropriate staff of assistants." To these sentiments every Fellow of the American Society of Clinical Pathologists subscribes, and we venture to say that were the

*Read before the Clinical Congress of the American College of Surgeons, Chicago, Oct. 23, 1923.

American College of Surgeons to rewrite paragraph V, in the light of present day advancement in our field, the term "clinical pathologist" would supplant that of "technician."

That there is a place under the sun for the technician is the opinion of all clinical pathologists, for, says Dr. Michael G. Wohl, Methodist Hospital, Omaha, "Lay technicians are valuable and absolutely necessary, yet, when it comes to interpreting laboratory findings as clinical symptoms, a Degree in medicine and several years experience in hospital work are absolutely necessary"; but, warns Dr. J. H. Black, of Dallas, Texas, "They should not be given autonomous positions." "Technicians," says Dr. A. H. Sanford, Mayo, Clinic, Rochester, Minnesota, "are, in my experience, highly trained laboratory workers, preferably women working under someone's direction." My personal opinion with reference to this matter is, it must be admitted, somewhat at variance with that of the majority of my colleagues, as it has long been the belief of the writer that the chief assistant in the hospital laboratory should be a potential clinical pathologist, a young man or woman who, having graduated in medicine and having served a proper internship in a general hospital, elects to enter the field of clinical pathology as a life-work. How else, it may be asked, may clinical pathology be perpetuated. The ever-widening circle of the application of laboratory methods to diagnosis demands skilled physicians, especially trained to meet the demands of the modern hospital, but from whence, pray tell, are the clinical pathologists of the future to come? I do not know of a single young physician serving an apprenticeship in a laboratory. Instances may exist and probably do, but they are hopelessly few. There are but two answers to this question, first, the encouragement of young Physicians of scientific inclination to enter the laboratory as first assistants, and, second, to again quote Dr. James C. Todd, Professor of Clinical Pathology, University

of Colorado, "See to it that there is a strong department of clinical pathology in every medical college."

Returning, then, to the subject, it may be said that the personnel of the hospital laboratory should include first, a clinical pathologist; second, to interpose a personal view, a young physician in course of training to become a clinical pathologist; and, third, as many technicians as the requirements of the institution may demand.

Our next consideration is:

Location, Size and Arrangement of Laboratory Space

That the laboratory should be on the uppermost floor, remote from the dust, noise and vibration of the street, with a northern exposure and located as near to the operating room as possible, is the consensus of opinion expressed by the clinical pathologists; and, says Dr. Charles Seitz, Evansville, Indiana, "Its location should be such that it will be freely accessible to the members of the hospital staff, in order to invite and encourage consultation with the clinical pathologist. In the event of it not being convenient to place it near the operating room, a small laboratory for frozen sections of fresh surgical material should be provided adjoining the surgical department." There should be at least five hundred square feet for every one hundred beds, "and the arrangement," says Dr. John Kolmer, University of Pennsylvania, with whom most clinical pathologists agree, "should depend upon the service required; but for a one-hundred and fifty bed hospital, I believe that the laboratory should be divided into the following four departments with space set aside for each. (a) For the preparation of tissues and culture media, and general sterilization; (b) Clinical pathology and clinical bacteriology; (c) Serology, with special reference to the Wassermann test, and (d) Biochemistry." To this allotment many of our Fellows would add a private office and record room for the clinical pathologist in charge, and it is generally preferred that the above departments:

be provided with separate rooms. "In any event," says Dr. A. H. Sanford, Mayo Clinic, Rochester, Minnesota, "don't shunt the laboratory off into the basement."

"As to equipment," laconically replies one clinical pathologist, "the best is none too good"; but, advises Dr. W. W. Hall, Watertown, New York, "the best of apparatus should be obtained; do not buy apparatus until there is a demand for it; discard apparatus as soon as defective, and always buy duplicate apparatus that is breakable. In the opinion of practically all of the clinical pathologists, however, the fundamentals of equipment are as follows: Autoclave, Arnold Sterilizer, Centrifuge, Incubator, Microscope, Refrigerator, Microtome, Basal Metabolometer, Colorimeter, Water Still, Hemocytometers, and appropriate glassware, instruments, and chemicals for carrying on clinical microscopy, chemistry, serology, bacteriology, and pathological histology, which thinks Dr. A. V. St. George, Bellevue Hospital, New York City, "can usually be purchased for around \$1,500.00. This would equip the average one hundred to one hundred fifty bed hospital laboratory. It is obvious, however, that the size of the institution will largely govern the amount of apparatus required." The writer would be inclined to make the latitude "around \$1,500.00" rather liberal so that it might be stretched to \$2,000.00 if need be, particularly in view of present prices.

Scope of Service

Now, in terms of golf, the ball has been knocked out into the rough, for here will be encountered several moot questions; first, what tests, if any, should be done as a matter of routine, taking into account both medical and surgical cases? "Routine blood and urine analysis," answers Dr. George L. Bond, Grand Rapids, Michigan, with whom ninety-six per cent of the clinical pathologists agree, "these tests reveal so many conditions that influence treatment, that the attending physician should have them in every case"; and, adds Dr. L. H. Cornwall, New

York City Hospital, "they are a necessary part of every record before diagnosis can be made with accuracy." Says Dr. Foy C. Payne, Dayton, Ohio, who voices the opinion of forty-seven per cent of his colleagues, "a Wassermann should be done routinely on all chronic cases." We are also reminded by several not to overlook a routine throat culture and vaginal smear in children, as well as the determination of coagulation and bleeding time on all tonsil and adenoid cases. Other tests, such as basal metabolism, blood chemistry, kidney function, blood typing, etc., were occasionally mentioned in the replies; but, avers Dr. A. B. Giordano, South Bend Medical Laboratory, South Bend, Indiana, "These three tests, namely, complete blood count, urine analysis and Wassermann reaction, will in a great many cases reveal evidence of disease process, which neither the patient nor physician is aware of. "My own views as to hospital laboratory routine coincide with those expressed by Dr. John R. Porter, Rockford, Illinois, who says, "Urines and blood counts on all sputum on all chest cases, blood culture on all temperatures of one hundred and two degrees Fahrenheit; throat cultures on all suspects and undiagnosed cases; stools on all diarrheas and smears and cultures on all discharges," for, continues Dr. Porter, "the average clinician does not know exactly what laboratory examinations his patients should have, so he does not order them, and the above will many times clear up the case before the tests suggest themselves to him. Furthermore, as Father Mouliner is wont to remind us, "the patient in the hospital is the object around which everything should revolve." The clinical pathologist should be one of the patient's closest relatives during his stay in the institution, and he should not be hampered by formalities during the application of his endeavors to elucidate the cause of disease. His advances should be welcomed by attending physicians as an integral part of hospital service and to which his patient is entitled.

With reference to surgical cases, it should be an axiom that no cutting operation, how-

ever small, should be undertaken—with the ever-present liability of infection—without first ascertaining the status of the blood as a matter of record; and, says Dr. Edward Mugrage, Assistant Professor of Clinical Pathology, University of Colorado, “the urine should always be checked in order to observe any renal disturbances which might otherwise be overlooked, and which would influence the choice of the anaesthetic.” It is the consensus of opinion that the histologic structure of all tissues removed at operation should be made a matter of record, not only as a check on clinical diagnosis, but as evidence which may be of inestimable value to the patient or his relatives at some future period, to say nothing of the statistical worth of such archives.

Now, another question: Should activities of the hospital laboratory be limited to the institution alone, or may its scope of service reach out beyond the confines of the hospital? On this point the clinical pathologists seem to be equally divided. “Most emphatically, yes,” says Dr. B. W. Rhamey, Fort Wayne, Indiana, representing one extreme, “they should confine their activities to the institution alone. Hospitals have no business going into competition with men making a specialty and life-work of this branch of medicine. That would be another phase in the advance toward State medicine”; but, says Dr. Ralph G. Stillman, Department of Pathology, New York Hospital, representing the other extreme, “I see no reason why the hospital laboratory should confine its activities to the institution, providing its personnel is large enough to handle the necessary work. The offer of diagnostic aid to practicing physicians in the neighborhood of the hospital, and on the hospital staff, broadens the service of the institution to the community, and establishes for the institution a permanently interested clientele that is of value both to the institution and to the community. No hospital that fails to act as a center for the dissemination of information concerning the prevention, diagnosis and treatment of disease is

fulfilling its entire duty.” The writer prefers the middle ground with Dr. M. W. Lyon, Jr., of South Bend, Indiana, who says, “that if the clinical pathologist in the hospital is the only one in the community, he may reach outside; but, if there are private practicing clinical pathologists in the community, the hospital laboratory should keep to itself.” For, after all, the development of clinical pathology as a specialty in medicine should not be impeded.

We are now face to face with another problem reflecting upon the scope of service of the hospital laboratory, namely, that of

Financing

this department of the institution. This brings us deeper into the thicket of uncertainty, and constitutes the “fly in the ointment” of co-operation in this phase of hospital standardization.

Adequate laboratory service will not be realized until the true status of the clinical pathologist is recognized by all classes of physicians. From the most remote time up to, say, twenty years ago, the contact of the medical profession with the laity was chiefly through one man—the family doctor. About this time there appeared a third party, the clinical pathologist, whose function it was to develop methods for the practical application of scientific facts which were rapidly being brought into light by the medical research laboratories of the world. The newcomer was acclaimed by physicians and surgeons alike, who paid their compliments with a shower of material to examine gratis. But it was soon evident that a definite department of medicine was developing which required to be maintained and the present confusion proceeds from the reluctance on the part of the firmly grounded practitioner to so modify his demands upon the public that the clinical pathologist might derive his share of financial support. A comparison of the skill of the clinical pathologist involved in condemning a breast or a limb, with that of the surgeon who removes it, would be as likely to balance in favor

of the former as the latter; but a considerable difference in compensation still obtains. That the public pays enough for medical service is obvious, and it is hoped that the hand-writing on the wall will not escape the attention of those concerned, for the person who is not indifferent to the signs of the times may with safety predict that State Medicine will be the inevitable outcome if the cost of medical and, particularly, surgical service, continues to increase.

As to methods in vogue at the present time for financing clinical pathology in the hospitals, an analysis of the questionnaires reveals a complete lack of uniformity, and one is at a loss to make any recommendations. For the time being, however, we must proceed upon the thesis that the clinical pathologist is a consultant in medicine and should be compensated accordingly the same as the surgeon or internist. Regarding the so-called "flat fee," a majority of the clinical pathologists agree with Dr. Philip Hillkowitz of Denver, who says, "that a flat fee is permissible only for routine urine and blood examinations; that the hospital laboratory should be financed by charging each patient for work performed; while for the more complicated tests, the usual fees in vogue should be charged and after proper deduction is made from the total monthly laboratory income for expenses of laboratory supplies, salary of technicians, interest on investment, expenses of rooms, light, heat, etc., the balance should be regarded as the compensation of the clinical pathologist."

In closing, may I suggest the appointment of a committee by the American College of Surgeons to co-operate with a similar committee from the American Society of Clinical Pathologists, to formulate a plan of financing the department of clinical pathology in the hospital?

To summarize, then, the personnel of the hospital laboratory should consist of a clinical pathologist in charge, a young physician in training for clinical pathology, and as many technicians as the work of the institution may require. It should be located adjacent to the operating room, preferably

on the top floor, with a northern exposure, and subdivided into five rooms, including a private office for the clinical pathologist. The equipment should be adequate for the carrying on of all of the necessary tests in clinical microscopy, pathological histology, bacteriology, serology, and chemistry. As a matter of routine, the laboratory department should determine the condition of the blood and urine of all patients entering the hospital, and write into the records of the institution the results of histologic examination of all tissues removed at operation. A Wassermann test should also be done as a matter of routine, at least upon chronic cases. The clinical pathologist should be freely employed as a consultant by the staff, and it should be considered his privilege and duty to perform any tests which in his judgment, might throw light on the condition of any patient. The activities of the hospital laboratory should be confined to the institution alone, unless it happens to be the only available center of clinical pathology in the community. The evolution of a satisfactory method of financing clinical pathology in the modern hospital is a matter for future determination and especially in the province of the committee suggested.

Metropolitan Building.

THE QUANTITATIVE COLLECTION OF DUODENAL CONTENTS

Percy B. Davidson, Boston (Journal A. M. A., March 1, 1924), has devised a duodenal tube the end of which can be inflated to cause obstruction of the duodenum, and prevent the passage of duodenal contents beyond it. Perforations in the tube permit the duodenal contents to flow into it and be withdrawn by siphonage. Thus the quantity of material present may be determined.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

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Articles are accepted for publication on condition that they are contributed solely to this journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

THE TREATMENT OF DIABETES MELLITUS

In a paper read before the Medical Association of Georgia in May, 1921, Paullin and Bowcock* stated that "The dietetic treatment of diabetes mellitus can be considered as satisfactory only when it fulfills certain requirements, which are as follows: (1) The patient's urine must be rendered sugar-free and remain so. (2) The blood sugar must be maintained at an approximately normal level. (3) The development of acidosis must be prevented and the blood and urine remain relatively free from acid bodies. (4) The diet must be adequate for the maintenance of nutrition and permit of a reasonable amount of bodily activity. (5) The diet should not be repulsive to the patient." Although during the past three years more has probably been written on this than on any other medical subject the five requisites stated above remain the sine qua non in the management of this malady. A pair of dietetic scales and a card giving the compo-

sition of the common foods together with a knowledge of how properly to use these should be the first consideration in the treatment of every case of diabetes. There is no substitute for an accurately weighed, measured and recorded diet. In the treatment of the severer cases, especially in the young, and in the treatment of the complications of the disease, insulin is now indispensable. But this most valuable remedy has not simplified the treatment or made it any the less necessary to conform to the fundamental principle in the treatment, namely diet. A preliminary stay of two weeks in a hospital under the care of an understanding physician and a competent dietitian is the most valuable time ever spent by the diabetic since "once-a-diabetic-always-a-diabetic" is not far from true.

*Paullin, J. E. and Bowcock, H. M., Recent Improvements in the Dietetic Treatment of Diabetes Mellitus, J. M. A. Ga., 10, No. 16, p. 676, (Sep.) 1921.

MEMBERSHIP STATUS

On December 31st, 1923 we had considerably over sixteen hundred paid-up members, the largest on record, but up to present time, April 1st, we have less than nine hundred paid-up for the year 1924. What seems to be the trouble? Have you paid your dues? If so, the Secretary of your County Society will appreciate your help in securing the dues from your colleague. The burden of maintaining a full membership rests particularly on the secretaries of the county societies but these need the help and cooperation of every member of the Association. As has been so well pointed out by our President, Dr. J. W. Daniel, cooperation and organization are the keynotes to the larger success which we believe the profession so richly deserves. Georgia is lagging far behind her sister states in many activities, particularly public health. A completely organized medical profession with unity of purpose can prove the greatest asset of the State in her time of need.

DOCTORS' WIVES UNITE

Across the river, in Carolina, the doctors' wives are organizing. In county groups and then in regional groups and then in a state association, auxiliary to and affiliated with the state medical organization, the wives of the physicians and surgeons are forming regularly organized bodies. Immediately and specifically, they are qualifying and cooperating for definite association with the organizations of profession to which their husbands belong—that they may be recognized as part of the medical association of the state. This is well. The movement has fine suggestions.

The ideal partnership in the home is that between husband and wife. There are many cases in which the woman, the wife, has a career—sometimes a career which overshadows that of her husband; in some cases each has a career, a calling, or a business—and they maintain fine relations, with each following somewhat dissimilar lines of activity with relation to the rest of the community. But in the normal family co-partnership as yet the husband mainly bears the burden of a gainful calling which puts him into constant relation with the rest of the community. The wife is mother and wife and housekeeper and so far as the husband's career is concerned, more or less a silent partner. More often than otherwise she is the power back of him—inspiring him and supporting him and making him largely what he is by accomplishment. Here the fine unselfishness of woman sheds its radiance—a light the world rarely sees and more rarely appreciates. In society as yet constituted by tacit regulation, the wife is a "help meet" inferentially to the husband. And it is an occasion for confidence in the future that the wife is indeed a help meet in so many instances. She understands and sympathizes with the husband in his profession; she sacrifices to the end that he may succeed and be of service. She gives up many things that the profession she chose when she consented to marry may be honored and elevated by the man of her choice. She glories in his advancement and is repaid if his service is ap-

preciated—grateful sometimes that he has given a valuable service even when it may not for the time seem to be fully appreciated.

No class of wives—with the possible exception of the preachers' wives—is quite so inevitably affected by the profession of their husbands as the doctors' wives. The doctor cannot claim his own time—and therefore he cannot give his time as regularly or liberally to his family. The doctor's wife never knows when the husband may be called away—on a mission of helping somebody back to health, saving a life, ministering to the suffering. With reference to engagements with her husband for the hours at home or for going out, the doctor's wife must forego anything like certainty that he will have the time to be with her. She must bear many of his burdens, she must help him bear the stress and strain that always comes—and frequently—to the busy doctor, especially the small town and the country doctor. She sacrifices at every turn—because he is a physician. She pays, too, in many little continual ways, for the alleviation he affords others. She is intimately associated and related to his calling—as few wives of other men are. The doctors' wives ought to organize—there are many problems peculiar to their class that might be solved or relieved by cooperative work.

And there are wives of other callings who might with profit get together and confer about problems which affect their lives.—Savannah Morning News.

AMERICAN CHILD HEALTH ASSOCIATION

"Child health in Georgia has a brighter outlook for the future and this state is taking rapid strides in the promotion of child health," said Miss Ella Phillips Crandall, associate general executive of the American Child Health Association, who spoke before the State Conference of Social Work in Atlanta, Tuesday evening, March 18.

"You are to be commended for the progressiveness shown in statewide efforts to

improve the health of the pre-school age child." Few states have made such an advance. We are very happy that our worker, Miss Amy Tapping has had an opportunity to work out this pre-school program with Mrs. Clifford Walker, the wife of the governor, for the Parent Teacher Association. A program has been cordially accepted and supported by other groups such as the General Federation of Women's Clubs, the State Department of Health and the State Council of Social Agencies.

"It is the policy of the American Child Health Association to send a worker to assist a community or state to develop a definite health education project. We sent Miss Tapping into Georgia without a definite object or purpose, merely placing her in the hands of organizations to work out the program they wanted, and the result has been the formation of this pre-school program."

The most significant factor of the American Child Health Association is its opportunity by its affiliation with the Conference of State and Provincial Health Authorities and the National Organization of Public Health Nursing to build sure, consolidated health work on a national scale. It is a privilege for our association to work with these state health officers, and only second in significance is the relationship with the national nursing body through which we work."

"The American Child Health Association with Herbert Hoover as president, was formed by the amalgamation of two leading child health agencies, the Child Health Organization and the American Child Hygiene Association. It has several divisions—health, education, nursing, medical service, public health service, research and publications. Through each division the association is able to carry on its extensive program for child health protection and education."

"To prevent gaps, overlapping and duplication of our service divisions we set up a co-ordinating field service which is self-explanatory. We co-ordinate our work not only within the Association, but also with

other agencies in the national health field. In one state where we carried on a child health education program we sent three staff members to work with teachers, parents and children themselves. The health education has not ended there. Now we are doing our follow-up work on safe and clean milk and birth registration. How inconsistent for us to broadcast the advice, 'Drink more milk,' when the milk consumed in a state may be unsafe. It is by our follow-up and tie up work that we agitate for the action of a state or community in improving fundamental health conditions. In many instances where men's and women's organizations have taken a definite health subject as the basis for their annual programs, we have given our assistance, either by sending a lecturer, a field worker, literature or a draft for a child health program adapted to their special communities."

"The American Child Health Association does not plan to build up a highly centralized organization at headquarters, but it aims to work through constituted authorities in a community or the state health officials. We do not work in a haphazard way, but we help communities discover their own health needs, inform them what their own state health department can do for them, and then, if the state officials ask for our assistance, our specialists step in to give their services."

Referring to the definite program of the American Child Health Association for 1924, Miss Crandall said:

"Our state-wide projects center in communities through birth registration and clean and safe milk campaigns. In each state only strategic communities are selected. Another major project is the survey of 86 cities in 31 states to obtain the exact status of child health conditions. The child health demonstrations, one of which is located in Athens, is another attempt to help the selected communities solve their individual health problems and develop their resources to improve health conditions. The scholarships and fellowships awarded teachers, doctors, and nurses by the association accom-

plished two things: They give financial aid to a few score persons for their personal educational advancement, and through the scholarships the association reaches back into the educational institutions where they study, and courses correlated with health education are developed. Certain teachers' scholarships have been made possible through an appropriation of the Metropolitan Life Insurance Company. In 50 cities scattered through 29 states 1,569 teachers are competing. This number is significant of a new interest in child health. Georgia is very well represented in this group of teacher contestants. In each city which has entered a group of teachers a local committee is named to sponsor the contest, to arouse interest of teachers and parents in child health education.

"By its projects the American Child Health Association is endeavoring to build up a background of trained workers to meet the demand that simultaneously arises by our creation of interest in child health protection and education."

OFFICIAL CALL TO THE OFFICERS, FELLOWS AND MEMBERS OF THE AMERICAN MEDICAL ASSO- CIATION

The seventy-fifth annual session of the American Medical Association will be held in Chicago, Illinois from Monday, June the ninth to Friday, June the thirteenth. Nineteen hundred and twenty-four.

The House of Delegates will convene on Monday, June the ninth.

The Scientific Assembly of the Association will open with the General Meeting held on Tuesday, June the tenth at 8:30 P. M.

The various sections of the Scientific Assembly will meet Wednesday, June the eleventh at 9 A. M. and at 2 P. M. and subsequently according to their respective programs.

Ray Lyman Wilbur, President

Frederick C. Warnshuis, Speaker, House of Delegates

Attest:

Olin West, Secretary, Chicago Illinois,
March tenth.

House of Delegates

The House of Delegates will convene at 10 A. M. on Monday, June 9, 1924, in the Assembly Room, American Medical Association Headquarters, 535 N. Dearborn St.

Representation

The apportionment of delegates made at the Boston Session of 1921 entitles your State Association to two delegates for 1922-23-24.

"A member of the House of Delegates must have been a member of the American Medical Association and a Fellow of the Scientific Assembly for at least two years next preceding the session of the House of Delegates at which he is to serve."

"Delegates and alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half, as near as may be, shall be elected each year. Delegates and alternates elected by the sections, or delegates appointed from the United States Army, United States Navy and United States Public Health Service shall hold office for two years."—Chap. I, Secs. 1 and 2, By-Laws.

Rules for the Guidance of the Committee on Credentials

Adopted by the House of Delegates at Atlantic City, N. J., June 6, 1912:

1. Credentials shall be of two parts. The first part shall be sent to the office of the Secretary of the American Medical Association by the secretary of the constituent association, not later than seven days prior to the first day of the first meeting of the House of Delegates, and shall be a list of delegates and alternates for that association. The constituent associations shall designate an alternate for each delegate, who may take the pledge of the delegate when authorized to do so by said delegate in writing. In the absence of such authority, any alternate who has been duly chosen by the constituent association may be seated in place of any delegate who is unable to attend, provided he presents proper official authority from said association. A certificate signed by the president or secretary of

the constituent association shall be deemed legal authority (as amended June 7, 1921).

2. Each delegate shall be furnished with a credential by the secretary of the association by which he is elected on a prescribed form furnished by the Secretary of the American Medical Association, which shall give the date and term for which he was elected and who was elected to act as alternate for him in case of his inability.

3. A delegate, on presenting himself to the Committee on Credentials, may be seated even though he may not present part 2 of his credentials, provided he is properly identified as the delegate who was elected by his association and whose name appears on the Secretary's record.

4. No alternate may be seated unless his credentials meet the same requirements as designated for the delegate and he can show written evidence that he is empowered by his delegate to act for him, except as provided for in Section 1 as amended (as amended June 7, 1921).

Scientific Assembly

The General Meeting, which constitutes the opening exercises of the Scientific Assembly of the Association, will be held Tuesday evening, June 10, 1924, at 8:30. The Sections will meet on Wednesday, Thursday and Friday, June 11, 12 and 13, 1924.

Convening at 9:00 A. M. the Sections on:
Surgery, General and Abdominal.

Ophthalmology.

Diseases of Children.

Pharmacology and Therapeutics.

Nervous and Mental Diseases.

Dermatology and Syphilology.

Preventive and Industrial Medicine and Public Health.

Miscellaneous Topics.

Convening at 2:00 P. M. the Sections on:
Practice of Medicine.

Obstetrics, Gynecology and Abdominal Surgery.

Laryngology, Otology and Rhinology.

Pathology and Physiology.

Stomatology.

Urology.

Orthopedic Surgery.

Gastro-Enterology and Proctology.

Registration Department

The Registration Department will be open from 8:30 A. M. until 5:30 P. M. on Monday, Tuesday, Wednesday and Thursday, June 9, 10, 11 and 12, and from 8:30 A. M. to 12:00 noon on Friday, June 13, 1924.

CLINIC PLAN IS ENDORSED BY GEORGIA P.-T. A.

The following plan for a clinic has been indorsed by the executive board, Georgia Congress of Mothers and P.-T. A. with the hope that it meets the rulings of the Georgia Medical association.

1. Intention of holding clinic shall be sent to secretary of Medical association, with a list of patients, and if there is no county association, then to the State Medical association, giving place, number of children, surgeons, anesthetist, and name of person sponsoring clinic, president of organization, superintendent of schools, home demonstration agent or physician.

2. Class of patients shall be charity, or those known in the community to be unable to pay regular fees. The intention shall be presented at the monthly meeting of the county medical society and they shall pass upon same. Appeal may be made if upon same. Appeal may be made of rejected names to the next county medical meeting by committee from club or organization to show reason why these names should be on clinic list.

3. Details of clinic, as to fee, equipment and place can follow lines used by the state board of health in 1922.

4. Clinic not over 20 (12 or 15 if preferred). Must be two weeks apart.

5. Specialist must examine each throat and decide if operation is necessary.

5. Family physician must send slip stating that heart, lungs, and urine have been examined.

POT-BELLIED EQUANIMITY

A number of years ago the above term was used by Carlyle in describing the Anglo-Saxon race. In recent years an English historian finds that the term could have well been applied to the race at the time of the

Norman conquest, and that it required the heavy sword and battle axe of the Normans to awaken the Anglo-Saxons to the knowledge that they were no longer the masters of the world.

Georgia is essentially Anglo-Saxon, and we thank God that this is true and hope that it will always be so. Moreover, the Anglo-Saxon equanimity is just as strong in Georgia today as it was in England nearly one thousand years ago. Alas, however, the pot-belly of the over-fed Englishman is being replaced by the shad-belly of the undernourished average Georgian. The equanimity, however, remains. Having heard as a child that we lived in "The Empire State of the South," we still complacently believe it, while the rest of the world moves past us.

When a man is well and strong it is hard for him to worry about the health of the rest of the world. When he is chronically ill he doggedly sticks to his work, caring for nothing except to live, and lets the rest of the world take care of itself.

Economically Georgia is allowing the other Southern states to leave her behind. The compilers of this letter believe strongly that this is due greatly to health conditions within the state. We doctors all know that we have a tremendous lot of preventable disease within the state. Just how much, the average doctor does not take time to learn. The average big business man, however, who is contemplating moving his factory or his manufacturing plant to some Southern state, does take time to learn.

Now, what does he find when he studies the census reports at Washington and the bulletins of the Bureau of Commerce and the U. S. Chamber of Commerce? Within the last few days the typhoid fever deaths for 1923 have been made public. What do we find? Out of a total of approximately seven thousand deaths in the United States, our state furnished one-tenth, although we have about one-fortieth of the total population. In other words, we had four times our share of typhoid deaths. To make the matter damning to us economically and commercially, the record is available in Washington and every prospective investor will

see it. The same report shows that North Carolina had three hundred deaths, less than half as many. Georgia leads the entire U. S., no other state being anywhere near her class.

Now, what do we find about malaria? I have not the 1923 reports in hand yet. I find, however, that in 1922 there were "reported in Georgia 584 deaths from Malaria." Now, we doctors all know that many negroes die and are buried out of the cities whose deaths are never reported. We also know that some of the so-called malarial deaths were really typhoid. We also know that for every malaria patient who dies that there are about 400 who do not die. Now, what does this mean? It means that in 1923 we had over 233,000 cases of malaria. If we count the dead ones as being no economic loss at all, the money loss from expenses incurred alone would amount to over a million and a half dollars per year, or fifty cents for every man, woman and child in Georgia. Yet Georgia spends only three cents per head to prevent all diseases in the state.

North Carolina spends sixteen cents per head and Florida spends twenty-five. Florida, supposed to be a land of swamps and alligators, has less than one-fourth as much typhoid fever because she has sense enough to spend money to prevent it. Even South Carolina spends thirteen cents per head for health. Now, unfortunately for us Georgians who hope to see big manufacturing plants come to Georgia, these facts are also available at Washington. All of our neighboring states are spending more money on the health of the people, all of them have better health records for the preventable diseases and more foreign capital is going to our neighbors.

In October, 1923, these facts were gone into at Savannah by a number of representative business men and professional men. They arrived at the conclusion that Georgia was slipping and that the cause was greatly due to poor health records at Washington. It is impossible to change the records without complete co-operation between the doctors, the business men and the State and County Boards of Health. Our health rec-

ord must be improved or capital will not come in.

The business men in Georgia must learn the facts and the public at large must learn the facts. The newspapers of the state are willing to help, but this educational work must be done systematically and carefully. We can not criticize our legislature for not giving money to public health work when the money was not available. We can not criticize the State Board of Health for not doing more and better work. They have done wonderfully with the money they had. They must have more just as soon as the money is available for the appropriation. We can not let Carolina and Florida pass us economically.

The State-Wide Health Association has been formed of business men and doctors to conduct this educational campaign. It is going to take money to do this work, probably two or three thousand dollars each year for two or three years. Later on as the business men of the state see what is being done, we expect them to foot the bills. In the meantime we doctors must pay the preliminary expenses, as we are supposed to be the only people in the state who are interested in the health of the state. A number of doctors have agreed to help raise this preliminary money, and you may mail your contribution to me, or give it to any other men on the finance committee.

We doctors realize, of course, that as individual practitioners of medicine our field of work is very limited. The only hope of handling the broad general problems of health is through full-time health officers in county and state. The State-Wide Health Association is definitely committed to this, and we all believe that the Ellis Health Law is the very best means of accomplishing this. Personally I firmly believe that a full-time health officer in each county in Georgia will cut our Malaria, Hook Worm, Typhoid Fever, Tuberculosis and Dengue in half within one year. It is estimated that these diseases cost Georgia over forty-five million dollars every year.

Cancer causes about two thousand deaths in Georgia every year. The writer firmly be-

lieves that this toll can be cut nearly in half through proper education of the people regarding early diagnosis and prevention.

The writer has seen the county of Bibb import a county physician to Macon as full-time health officer and has seen more good health work done in two years than was done in the county for the preceding twenty. As I see it, this is the hope of the state: full-time health officers in every county through state aid if necessary, with thorough co-operation from an active State Board of Health. The plans, however, must be given full publicity, and this publicity costs money. Will you help with your share?

Dr. C. C. Harrold, chairman, Macon, Ga.

Dr. Stewart R. Roberts, Atlanta, Ga.

Dr. J. H. McDuffie, Columbus, Ga.

Dr. H. M. Fullilove, Athens, Ga.

Dr. W. D. Kennedy, Metter, Ga.

Dr. J. M. Smith, Valdosta, Ga.

Dr. W. P. Harbin, Rome, Ga.

Dr. C. H. Watt, Thomasville, Ga.

Dr. A. H. Hilsman, Albany, Ga.

Dr. J. Cox Wall, Eastman, Ga.

Dr. H. R. Slack, LaGrange, Ga.

Dr. H. W. Shaw, Augusta, Ga.

Dr. J. W. Daniel, Savannah, Ga., ex-officio member as President State-wide Health Association.

POST GRADUATE CLINIC TOUR

Inter-State Post-Graduate Clinic Tour to Canada, British Isles, and Paris, in 1925 is now being arranged under the supervision of the Managing-Director's office of the Tri-State District Medical Association. The time for leaving will be about the middle of May.

The Tour will consume, approximately, two months' time and the total cost from Chicago and back to Chicago again will be less than \$1,000.00. This will include all clinic arrangements and admissions and all traveling expenses, except meals on Pullmans in America and tips on the ocean steamer. First-class hotels will be used everywhere and the ocean passage will be on the largest and finest of the new one cabin ships.

Clinics are being arranged in Dublin, Belfast, Liverpool, Manchester, Leeds, Edinburgh, Glasgow, Newcastle, London and Paris and other points of clinical interest. The clinics will be conducted by the leading clinicians of these cities. The opportunity will be given, subsequently, to visit the clinic centers in other parts of Europe.

This tour is open to members of the profession who are in good standing in their state or provincial societies and their families and friends.

Sight-seeing programs will be arranged practically every day abroad including the most scenic part of the countries visited without extra cost.

On account of the great demand for reservations, applications should be made as early as possible to Dr. William B. Peck, Managing Director, Freeport, Illinois. Preference in the assignment of Hotel and steamship accommodations will follow the order in which the applications are received.

A WAR AGAINST QUACKS

The war which the New York City's health commissioner has declared against quacks ought to be waged in every state if not every town of America. There is scarce a population center of size without its medical imposter preying upon the credulous. If, as the federal department of the treasury reports, hundreds of millions of dollars are lost annually by victims of fraudulent stock schemes, how many millions more must be wheedled from victims of fraudulent physic!

The mountebank who claims to cure everything has appealed to human ignorance from the earlier ages of Egypt down to our own supposedly skeptical but exceedingly audible day. If he merely swindles those coming to him, his offense would be nothing extraordinary; but he does more. He gives them false hope, which is far worse than his foolish nostrums, and stands in the way of their seeking the aid of a reputable physician. He is an obstruction to every movement for the conquest of disease, an enemy in disguise to

every sufferer who falls into his clutches, a pest and a curse to every community that harbors him.

Law may not do much to stamp this evil out, but it ought to do all that it can. Because, as Barnum said, people like to be humbugged, it is next to impossible to get quit of quacks. But educational campaigns, thoroughgoing and persistent, will take effect in process of time, and at least will save some of the multitudes who now are swindled, not of their money alone, but also of their health—swindled by so-called “doctors” without ethics or standing or conscience, and so-called “medicines” that are worse than useless.

COUNTY SOCIETY REPORTS

Brooks County Medical Society

The Brooks County Medical Society announces the following officers for the year 1924:

President—Dr. J. R. McMichael, Quitman.
Secretary - Treasurer—Dr. L. A. Felder, Quitman.

Jenkins County Medical Society

The Jenkins County Medical Society announces the following officers for the year 1924:

President—Dr. M. E. Perkins, Millen.
Secretary-Treasurer—Dr. C. T. Thompson, Millen.
Delegate—Dr. C. A. Mulkey, Millen.

Franklin County Medical Society

The Franklin County Medical Society announces the following officers for the year 1924:

President—Dr. Stewart D. Brown, Royston.
Vice-President—Dr. G. T. Ridgway, Royston.
Secretary-Treasurer — Dr. B. T. Smith, Carnesville.
Delegates—Drs. J. O. McCrary and W. B. Heller.

Dougherty County Medical Society

The Dougherty County Medical Society announces the following officers for the year 1924:

President—Dr. A. W. Wood, Albany.

Vice-President—Dr. N. E. Benson, Albany.

Secretary-Treasurer—Dr. W. S. Cook, Albany.

Delegates—Drs. W. L. Davis and J. A. Redfearn.

Montgomery County Medical Society

The Montgomery County Medical Society announces the following officers for the year 1924:

President—Dr. Cleveland Findley, Uvalda.

Vice-President—Dr. W. M. Moses, Uvalda.

Secretary-Treasurer—Dr. J. E. Hunt, Mt. Vernon.

Delegate—Dr. J. W. Palmer, Ailey.

DeKalb County Medical Society

The DeKalb County Medical Society announces the following officers for the year 1924:

President—Dr. C. E. Pattillo, Decatur.

Vice-President—Dr. Mary F. Sweet, Decatur.

Secretary-Treasurer—Dr. J. F. Pitman, Decatur.

Delegates—Drs. Wiley S. Ansley and C. E. Pattillo.

Polk County Medical Society

The Polk County Medical Society announces the following officers for the year 1924:

President—Dr. T. E. McBride, Rockmart.

Vice-President—Dr. W. G. England, Cedartown.

Secretary-Treasurer—Dr. W. W. Tison, Cedartown.

Delegates—Drs. H. M. Hall and J. W. Good.

Twiggs County Medical Society

The Twiggs County Medical Society announces the following officers for the year 1924:

President—Dr. A. J. Wood, Fitzpatrick.

Vice-President—Dr. T. S. Jones, Jeffersonville.

Secretary-Treasurer—Dr. H. A. Rogers, Jeffersonville.

Delegates—Drs. T. S. Jones and H. A. Rogers.

Baldwin County Medical Society

The Baldwin County Medical Society announces the following officers for the year 1924:

President—Dr. Richard Binion, Milledgeville.

Vice-President—Dr. Y. H. Yarbrough, Milledgeville.

Secretary-Treasurer—Dr. H. D. Allen, Jr., Milledgeville.

Delegates—Drs. G. L. Echols and Richard Binion.

Butts County Medical Society

The Butts County Medical Society announces the following officers for the year 1924:

President—Dr. W. H. Steele, Jackson.

Vice-President—Dr. J. W. Harper, Jenkinsburg.

Secretary-Treasurer—Dr. J. Lee Byron, Jackson.

Delegates—Drs. A. F. White and W. H. Steele.

Ocmulgee Medical Society

The Ocmulgee Medical Society announces the following officers for the year 1924:

President—Dr. J. Cox Wall, Eastman.

Vice-President—Dr. A. L. Wilkins, Eastman.

Secretary-Treasurer—Dr. W. H. Pirkle, Cochran.

Delegates—Drs. W. F. Massey and W. A. Coleman.

Upson County Medical Society

The Upson County Medical Society announces the following officers for the year 1924:

President—Dr. E. W. Carter, Thomaston.

Vice-President—Dr. C. A. Harris, The Rock.

Secretary-Treasurer—Dr. R. L. Carter, Thomaston.

Delegates—Drs. A. H. Black and J. M. McKenzie.

Habersham County Medical Society

The Habersham County Medical Society announces the following officers for the year 1924:

President—Dr. E. H. Lamb, Demorest.

Vice-President—Dr. S. A. Boland, Cornelia.

Secretary-Treasurer—Dr. R. B. Lamb, Demorest.

Delegates—Drs. P. Y. Duckett and W. V. Chandler.

NEWS ITEMS

Dr. John W. Daniel, President of the Medical Association of Georgia, has received his commission as a Colonel in the Medical Corps of the O. R. C. of the United States Army. Dr. Daniel was a Major in the World War and besides being president of our Association is Health Commissioner of Chatham County and President of the Statewide Health Association.

Dr. William Howard Hailey has returned from New York City where he has been attending the Dermatological Clinics.

Dr. James Leonidas Estes announces the opening of his offices at 79 Forrest Avenue, Atlanta. Practice limited to urology and genito-urinary surgery.

Dr. Elmore Callaway Thrash and Dr. William Pope Baker announce the installation of a Deep Radiotherapy Plant for the treatment of malignancies in their offices, at 79 Forrest Avenue, Atlanta.

Dr. William T. Jones has removed his offices to 41 Forrest Avenue, Atlanta.

Dr. W. L. Mathews, of Waycross, is now in New Orleans taking a Post-Graduate course at the New Orleans Polyclinic.

Doctor Bomar A. Olds announces his location at seventy-nine Forrest Avenue, Atlanta, Georgia, for the practice of medicine.

The following officers were elected by the Savannah Hospital at the annual staff meeting:

President—Dr. Geo. H. Richter.

Vice-President—Dr. Isaac Levington.

Secretary-Treasurer—Dr. J. L. Allen.

Dr. H. H. McGee, Chief of Staff.

The Leon Moyer Medical Society, composed of the physicians of Toombs, Montgomery, Truetlen and Wheeler counties, has elected the following officers:

President—Dr. J. E. Mercer, Vidalia.

Vice-President—Dr. J. E. Hunt, Mt. Vernon.

Secretary-Treasurer—Dr. Cleveland Findley, Uvalda.

Each of the four counties has its own County Society and Delegate to the Association.

The contract for the erection of the John F. Archbold Memorial Hospital has been given to the Southern Ferro Concrete Company for \$464,000. When fully equipped the Hospital will cost \$650,000 and is the gift of John F. Archbold as memorial to his father.

The Kiwanis Club is doing a great service for Metter and Candler County by equipping and maintaining a free clinic for the children of this county. This is a noble work—work where money and effort will be expended for the interest of humanity.

Dublin is to be well drained this spring as a result of the campaign to clean up all mosquito breeding places. The cost of the work will be very small, in fact, the Mayor and Council were agreeably surprised at the low cost estimated for the complete job.

The Central of Georgia Railway system is to have a local hospital in Savannah for diagnosis, x-ray examinations, health service and the like, for its employees.

At a meeting of the Georgia Medical Society a Committee of three were appointed to cooperate with the charity clinics to try to prevent imposition by people who are able to pay for services.

The Washington General Hospital, at Washington, Ga., has been completed. The Wilkes County Medical Society is now formulating plans to take over the institution and operate it along the most modern lines. A most interesting feature of the construction of the building is that the \$25,000 which was set aside to cover construction costs, entirely covered all expenses without additional funds.

SECOND DISTRICT SOCIETY

Annual meeting of the Second District Medical Society held March 14, 1924, at Thomasville, Ga.

Address of Welcome—Mayor Hugh J. McIntyre.

Invocation—Rev. Campbell Symonds.

“Insulin and Diet in the Treatment of Diabetes”—Dr. J. A. Redfearn, Albany. Discussion by Dr. S. L. Cheshire, Thomasville, and Dr. P. H. Keaton, Damascus.

“A Standardized General Tonsillectomy”—Dr. M. H. Stuart, Moultrie. Discussion by Dr. J. T. King, Thomasville, and Dr. E. F. Sapp, Albany.

“The Infected Kidney” with report of cases—Dr. Gordon Chason, Bainbridge. Discussion by Dr. Chas. H. Watt, and Dr. Everett Daniel.

“The Treatment of Asthma, Hay Fever, and Allied Conditions by Specific Hyposensitization”—Dr. Hal Davison, Atlanta.

“X-Ray Diagnosis;” “Treatment of Skin and Malignant Diseases”—Dr. F. A. Sprague, Macon.

“Consideration of the Diseased Heart”—Dr. J. W. Daniel, President of the Medical Association of Georgia, Savannah.

A special musical program was rendered at the lunch hour.

Election of officers.

REPORT OF COMMITTEE ON SCIENTIFIC WORK

The Committee on Scientific Work met in the office of the Association at 10 a. m., March 15th. All members of the Committee were present. The Committee endeavored (1) to prepare a scientific program which will be of “the greatest good to the largest number,” (2) to give different sections of the State representation, and (3) to limit the number of papers so that the program may be completed. In order to do this it was necessary to leave off titles submitted by a number of members. There was no other recourse. On account of this fact it is particularly important that those placed on the program be present to read their papers when called.

All papers must be typewritten, double-spaced, and the original (not a carbon copy) turned over to the Secretary of the Association when read. The author's name and address should be on each manuscript. All papers read become the property of the Association and may not be published elsewhere than in the official Journal. Each essayist is expected to have his paper as nearly correct in every detail as it is possible for him to make it.

B. H. Minchew, Chairman,
C. H. Richardson, Jr.

Allen H. Bunce, Secretary.

PRELIMINARY PROGRAM

Seventy-Fifth Annual Meeting Medical Association of Georgia, to be held at Augusta, Georgia, May 7, 8 and 9, 1924. Headquarters: Hotel Richmond.

1—Medicine: Past and Present.

A. J. Mooney, Statesboro.

2—“Peri-articular” Abscess of Hip of Traumatic Origin.

W. W. Battey, Jr., Augusta.

3—Preventive Abdominal Surgery.

C. W. Roberts, Atlanta.

4—Surgery of the Gall-Bladder.

B. T. Wise, Plains.

5—Review of the Subject of Pelvic Inflammation.

W. H. Myers, Savannah.

- 6—Postoperative Dehydration.
R. M. Harbin, Rome.
- 7—Report of a case of Measles Accident-
ly Transmitted by Blood Transfusion,
Preerupted Stage.
H. P. Harrell, Augusta.
- 8—Acidified Milk with Karo Syrup as an
Artificial Feeding for Babies.
W. A. Mulherin, Augusta.
- 9—Modified Breast Milk.
W. L. Funkhouser, Atlanta.
- 10—Some Problems of the Slowly Conva-
lescent or Half-Sick Child.
R. L. Miller, Waynesboro.
- 11—The Thymus Gland in Infancy and
Childhood.
A. J. Waring, Savannah.
- 12—Status Thymicus in Children.
W. N. Adkins and W. T. Freeman,
Atlanta.
- 13—A Story in Tetany.
Cleveland Thompson, Millen.
- 14—The Treatment of Bone Tuberculosis.
Lawson Thornton, Atlanta.
- 15—Surgery of the Thyroid Gland under
Local Anaesthesia. Lantern Slide Il-
lustrations.
T. C. Davison, Atlanta.
- 16—Adhesions of the Ascending Colon with
Obstructive Symptoms; so called
Chronic Appendicitis (lantern slides).
L. W. Grove, Atlanta.
- 17—Cystograms with Air Injection to Dem-
onstrate Intravesical Hypertrophied
Prostate.
E. G. Ballenger, O. F. Elder and
W. F. Lake, Atlanta.
- 18—"Tips" for the Cock-Sure Specialist.
Elton S. Osborne, Savannah.
- 19—Statewide Health Association.
C. H. Richardson, Jr., Macon.
- 20—State Board of Health Program.
J. P. Bowdoin, Atlanta.
- 21—Concerning Some Phases of Cardiac
Insufficiency.
Thos. D. Coleman, Augusta.
- 22—The Treatment of Pneumonia.
Stewart R. Roberts, Atlanta.
- 23—Intestinal Protozoa.
V. P. Sydenstricker, Augusta.
- 24—Further Observations on Cause and
Treatment Vernal Conjunctivitis.
A. G. Fort, Atlanta.
- 25—Advances in Recognition and Treat-
ment of Bladder Inflammatory Dis-
eases.
S. A. Kirkland, Atlanta.
- 26—Prostatitis.
Y. C. Lott, Albany.
- 27—The Neglected Prostate.
C. H. Watt, Thomasville.
- 28—The Diagnosis and Treatment of Atypi-
cal Forms of Hay Fever.
Hal. M. Davison, Atlanta.
- 29—Simple Methods for the Differentia-
tion of Cardiac Arrhythmia.
E. D. Shanks, Atlanta.
- 30—Industrial Hernia.
K. McCullough, Waycross.
- 31—Ureteral Calculus Bilateral, Time
Check on at Least One Stone.
C. K. Wall, Thomasville.
- 32—Malarial Studies in Georgia.
S. T. Darling, International Health
Board.
- 33—Diabetes.
J. D. Gray, Augusta.
- 34—The Surgical Problems in Cancer of
the Breast.
M. C. Pruitt, Atlanta.
- 35—Acute Pancreatitis Following Gesta-
tion, with Report of a Case.
L. A. Baker, Tifton.
- 36—Toxemia of Pregnancy.
R. F. Wheat, Bainbridge.
- 37—A Study of the Etiological Factors in
Two Hundred Mental Breakdowns.
J. N. Brawner, Atlanta.
- 38—The Relation of Adherent Prepuce to
Epilepsy.
E. Bates Block, Atlanta.
- 39—Stab Wound of the Heart, Successful
Suture.
R. L. Rhodes, Augusta.
- 40—Tuberculosis of the Pylorus, with Ob-
struction with Report of a Case.
W. E. Person, Atlanta.
- 41—Treatment of Malignancies.
T. Byron King, Sandersville.

42—Carcinoma of Pancreas in Third and Eighth Decades of Life.

C. D. Ward, Augusta.

43—Resume of Twelve Months' Work of the Good Samaritan Clinic for Diseases of the Ductless Glands, Especially Reporting Idiocy and Epilepsy as Influenced by Glandular Treatment.

Arch Elkin (Representing Medical Staff), Atlanta.

44—Gas Bacillus Ingection.

Julian K. Quattlebaum, Savannah.

45—Cancer of the Small Intestine.

Geo. A. Traylor, Augusta.

To The Members of The Medical Association of Georgia:

Gentlemen:

At your annual meeting in Augusta in May several constructive things will be offered by me for your consideration. Among them will be the following: A full time Editor and Business Manager for The Journal. This I feel is needed if we hope to expand the field of usefulness of our Journal. The present Editorial Staff have done excellent work, but being in active practice it is an imposition on them to ask that they give their time and energy to building up a Journal. This should be made a matter of business, and put on a business basis. The Editorial Staff should be selected from our leading physicians and surgeons, and they should be charged with the duty of seeing that the columns are full of high class matter. As it is now the entire running of the Journal falls on the shoulders of two busy physicians, and when they do not neglect their private interest to give you a good Journal—and yet you never contribute one article—you are ready to condemn them.

The By-Law refining the duties of The Committee on Public Policy and Legislation should be changed so as to give the Com-

mittee power to initiate and perfect matters for the good of the profession without waiting until the next year for the House of Delegates to meet. Our Legislature meets a month later than our State Association. A new President is elected annually, he appoints a new Committee, they organize and have ideas as to what would be of benefit to the profession, and yet on account of this By-Law they can not initiate a movement in the Legislature without the approval of The House of Delegates, which meets the following year. Thus we are forever hampered and all progress stifled.

Each County Society should have a strong and active committee that will cooperate with the Parent Teachers Association and other Civic Clubs in all matters pertaining to public health. This committee should also take the initiative in their community in educating the public to the needs of better health, better sanitary regulations, better balanced food rations, etc. This committee should also formulate for publication in the name of the County Society a monthly letter to be published in the local paper, dealing with matters of health. By this means we will retain the confidence of the public, we will offset some of the vicious, and unscrupulous advertising that is being done by Cults, and unethical and unreliable people that our lax state laws permit to practice the healing art.

Active steps should be initiated to have the members of both the State Board of Health and State Board of Medical Examiners, suggested to the Governor for appointment by the State Medical Association. These boards should be filled from the best men in the Medical profession, and should not be political appointees.

It is hoped that each County Society will take up these suggestions and give them thoughtful consideration and come to Augusta prepared to either put them into effect or reject them.

Yours truly,

JOHN W. DANIEL.

INSTITUTE FOR TUBERCULOSIS WORKERS

Fourteenth Session

Conducted by Philip P. Jacobs, Publicity Director National Tuberculosis Association, May 12 to May 29, 1924, under the Auspices of Emory University, Atlanta, Ga.

The Institute for Tuberculosis Workers is a training course for those who are already engaged in tuberculosis work or who wish to enter this field. The dates of the fourteenth session are May 12 to May 29, 1924. The Institute is organized and conducted by the National Tuberculosis Association under the auspices of Emory University, at Atlanta, Ga.

All sessions will be held at the Central Y. M. C. A., 75 Luckie Street, Atlanta, Ga.

Objects

The Institute has four main objectives: to assist workers already in executive positions in the tuberculosis field to assume positions of greater responsibility, or to be more useful in their present positions; to prepare for executive positions those who have not had experience in the tuberculosis field; to give to volunteer workers a more comprehensive knowledge of the administrative problems involved in this work; to aid in the standardization of methods and programs of tuberculosis work.

Outline of Course

I. Methods of Anti-Tuberculosis Work.

(1) Educational Methods — Exhibits, publicity, literature, Modern Health Crusades, Christmas seal campaigns, conduct of conferences and meetings, etc.

(2) Organization—Constitution and by-laws, working committees, getting related groups to work, personalities, meetings of boards and committees, office organizations, etc.

(3) Dispensaries—Establishment, organization and equipment, staff, records, costs, functions, etc.

(4) Open Air Schools—Kinds of schools, construction, selection of children, teacher, length of stay and after-care, feeding and clothing, medical care and results, etc.

(5) Medical Service—Medical education, consultation service, standardized technique, etc.

(6) Surveys—Preliminary work, kind of surveys, getting the facts, presenting the facts, etc.

(7) Nursing—How to get a good nurse, the nurse and the dispensary, urban vs. rural problems, the nurse in the home, the nurse in the community, general vs. specialized nursing, nursing as a public function, etc.

(8) Institutional Methods—Anti-tuberculosis societies in relation to public and private institutions, state vs. local hospitals, operation of a sanatorium or hospital, follow-up and social service work, hospital records, etc.

(9) Industrial Work—Occupational mortality, medical examination of employees, employees' relief association, health work in factories, health insurance, etc.

(10) Co-operation with City and State Officials—With the local boards of health, with county boards of health, with state boards of health, with various city departments, etc.

(11) Statistical Methods — Vital statistics, interpreting vital statistics, use of statistical data, etc.

II. Programs of Anti-Tuberculosis Work.

(1) Programs for Local Work—Education, hospitals and sanatoria, dispensaries, nurses, open air schools, industrial work, municipal legislation, co-operation with city officials, interrelation and co-ordination, programs for small towns and rural communities, for large cities, etc.

(2) The Framingham and Millbank Community Programs—The Framingham idea, results of the demonstration, Millbank Fund plan, etc.

(3) Programs for State Work—Prevention of infection, increasing resistance, care of curable cases, working with local and state groups, the functions of the state associations in relation to the State Board of Health, etc.

(4) Program for the Nation—History of national movement, policies of the National Association, methods of national work, etc.

III. Relation of the Tuberculosis Campaign to Other Social and Public Health Movements.

Boards of health, American Public Health Association, infant mortality movement, pure milk campaign, housing campaign, temperance movement, charity organization and similar societies.

IV. The Psychology of Community Organization.

V. Medical and Scientific Basis of a Tuberculosis Campaign.

Methods of Work

The Institute does not follow the usual class-room or lecture method. The round-table conference with discussion prepared and directed by the conductor is in the main the method employed. Each of the various topics indicated in the foregoing outline is presented by an expert in that particular line and the subject is thoroughly discussed by him and the director, with ample opportunity for class discussion, comments and questions. "Scenarios," or practical applications of teaching, are used to demonstrate certain features.

Since the membership of the Institute is strictly limited, every possible opportunity for intensive study is afforded.

Fees and Expenses

The only charge for the Institute will be a registration fee of ten dollars (\$10). This fee is payable on registration day: May 12, 1924. Members are requested not to send fees in advance of this date. For living expenses in Atlanta, it is desirable to allow about \$15.00 to \$18.00 a week, as a minimum.

Admission

Membership in the Institute is by invitation in every case. Those who are interested in attending should write Philip P. Jacobs, 370 Seventh Avenue, New York. Invitations will be issued to not more than thirty.

OBITUARY

Dr. John Richmond Statham died at his home in Americus, March 7, 1924, after an illness of ten days with pneumonia. He was a leading physician of Americus and a brother of Dr. O. W. Statham, of Leesburg.

Dr. H. P. Quillian, one of the leading physicians of Winder, died at the home of his son, Dr. E. P. Quillian, of Clyattville, near Valdosta, February 18, 1924. Dr. Quillian had been in declining health since a severe attack of flu some months ago. He was 73 years of age but had enjoyed an active practice of his profession until his last illness.

Dr. J. M. Wooldridge, Columbus, died February 3, 1924, at the age of 79 years. Dr. Wooldridge's death did not come unexpectedly as he had been confined to his home for the past four months. Dr. Wooldridge is the father of Dr. J. C. Wooldridge, of Columbus, a member of the Muscogee County Medical Society.

Dr. E. W. Watkins, of Ellijay, died suddenly of heart failure, March 9, 1924, at the age of 84. Besides being a well known physician of Gilmer County, Dr. Watkins had been mayor of Ellijay three terms and served on the legislature several years. Dr. E. W. Watkins, Jr., of Ellijay, and Dr. E. C. Watkins, of Brooklet, are sons of Dr. Watkins.

Dr. J. T. Edwards, retired physician of Fayetteville, Ga., died March 5, 1924, at the age of 66, after several years of sickness. Dr. Edwards had also practiced at Senoia, his birthplace.

DR. ALFRED LUCIUS FOWLER 1872-1924

Within the last few weeks, the hand of death has sent its shadow over this Society, and Dr. Alfred Lucius Fowler has been gathered to his fathers.

In noting the passing, it is fit that his achievements and accomplishments, as a doctor and comrade, be recorded, as well as to express our sorrow incident to his going.

Dr. Fowler was born November 15th, 1872, in the City of Atlanta, and was graduated from the Atlanta College of Physicians and Surgeons in the class of 1899. In August 1914, he was married to Miss Helen Ackenbach of Orange, Texas. Dr. Fowler was the first surgeon in this section of the South to use spinal anesthesia. He had closely studied its technique while on one of his several European post-graduate tours. He was also a pioneer cystoscopist, as he had the opportunity of practical work in this line while he was chief physician to the Atlanta Penitentiary. For many years he was Professor of Urology at his Alma Mater. He was unquestionably a leader and pioneer in this field of endeavor.

In the untimely death of Dr. Fowler, the Fulton County Medical Society, as well as numerous other scientific organizations of which he was a distinguished member, has lost a valuable friend and co-laborer.

As to his moral attitude, probably no better description can be made than by merely quoting a sentence made by him just before his last illness:

"I desire that my body be buried in a decent and Christian-like manner, and in keeping with my condition in life," and so it was.

That this meager expression may be properly recorded,

IT IS RESOLVED:

That a copy of this be spread upon the minutes of the Society, one sent to his widow, one furnished the Journal of the Medical Association of Georgia, and one to the lay press of Atlanta.

Signed:

Theo. Toepel,
F. C. Nesbit,
Arch Elkin,

Committee.

DERMATITIS VENENATA FROM THE LACQUER ON THE BOXES OF MAH JONG SETS

Oscar L. Levin, New York (Journal A. M. A., Feb. 9, 1924) reports a case of dermatitis venenata in which it was apparent that the instigating chemical agent was present in the lacquer on the box of a mah jong set. Under treatment with wet dressings and an alkaline lotion, the lesions dried and showed rapid involution.

Erwin P. Zeisler (Journal A. M. A., Feb. 9, 1924), also reports a case of dermatitis of the hands and face in which the irritating agent was the Japanese lacquer with which mah jongg sets are varnished.

THE INSULIN RESERVE

It will be interesting to note a few years hence the extent to which insulin has extended the life span of diabetic patients. It appears that there is a type of diabetes that progresses to a total loss of tolerance and in which insulin does not materially affect the underlying metabolic fault. It is highly probable, according to Wilder,⁴ that patients with the acute type of diabetes will in a few years lose all native tolerance for glucose, and become completely dependent on insulin. Their metabolism will consist exclusively of ketogenic acids, and 100 or more grams of acetoacetic acid will accumulate daily. How much insulin will keep these patients alive? Assuming that a normal man resting generates 1,700 calories a day, that amount of heat in completely diabetic patients would be supplied by ketogenic acids, which, in terms of fat, would be 180 gm. To avoid acidosis in these hypothetical patients, 56 gm. of oxidizing glucose would be required, and, to metabolize the glucose, 37 units of insulin would have to be injected. But infection and other complications may suddenly arise. It seems, therefore, that at least 1 unit of insulin for every necessary gram of glucose, or 56 units a day, might be required, and still more would be necessary if the patient is to lead an active life. Wilder therefore finds it desirable, in planning satisfactory

diets that are palatable, to establish tolerance for 100 gm. of glucose, which might necessitate 100 units of insulin. Infection always demands more insulin. It cannot be too strongly emphasized that a partially diabetic patient may suddenly be converted into a totally diabetic patient by infection. The best insurance in such emergencies is to keep on hand a month's reserve supply of insulin. Distributors of insulin (and the postman is included) are responsible in part for the welfare of such patients, and in times of epidemics of the infectious diseases, that responsibility will increase. The economic aspects of the use of insulin are also concerned in the discussion by Drs. Reginald Fitz and William P. Murphy, in this issue of *The Journal*. As they wisely indicate, there are two classes of diabetic patients: those to whom insulin is a luxury and those to whom it is a necessity. To those diabetic patients who have a high tolerance and who do well for years on a reasonably restricted diet, insulin offers little as an economic investment. One cannot help but agree with the conclusion that the wise physician will conserve the use of insulin in the cases of such diabetic patients as can dispense with it or use only small amounts, and will hold it in reserve as an indispensable product for the patients who require large amounts in order to secure definite results.—*Jour. A. M. A.*, Feb. 9, 1924.

HEREDITY AND OBESITY

If a hundred men of about the same stature are compared, Davenport¹ remarks in an unusually elaborate study of body build and its inheritance, it is seen that they vary greatly in weight. At the same time they vary in form, and especially in bulk. This variation is popularly recognized by the variety of terms applied to build. The slim, gaunt and lanky, the obese, chubby and portly—these and many more designations have been adopted to describe persons of unlike "build." The extremes of such structural make-up of man not infrequently come to the physician for consideration

in his professional capacity. He is expected to transform the slender and the corpulent, as the case may be, into a more nearly average type of body build; to eliminate the supposed disadvantages of undersize and the alleged dangers of overweight by the promotion of more nearly ideal form and weight.

Were the features just stressed merely the expression of an inappropriate adjustment between intake and output of matter, it would seem that the correction of objectionable build ought to become a comparatively easy task. Gain or loss would call primarily for more or less favorable nutritive balance regulated by dietary control. There are many, indeed, who look on obesity as essentially the expression of undue food intake. Others regard the condition as one involving in some way a disordered metabolism. It has even been suggested that the obese digest and utilize their food more efficiently than persons belonging to the nonfattening group, thereby putting on weight under dietary conditions that fail to promote gains in most persons. Those who reject any peculiarity of metabolism in the fattening process point to certain habits of life as favoring obesity. Thus, to quote a recent writer, Eskimos are assumed to grow fat because they eat blubber and huddle in narrow spaces, undergoing little movement throughout the long, dark winters.

It is doubtless true that the ability of the body to store proteins and carbohydrates is limited so that any considerable and long continued excess of food leads to an accumulation of fat. Obesity arises only when the intake of energy in the food has exceeded the expenditure. There is no extensive experimental justification for assuming that the basal metabolism or fundamental energy overturn of obese persons is lower than the lowest normal limits. Nevertheless, it is not easy to avoid the conclusion from everyday observation that certain persons grow fat despite the fact that they appear to eat moderately and appear to take an ordinary amount of exercise. Whatever the fundamental cause may be, says Davenport, the

fact remains that in certain families there is a widespread inclination to the production of slender individuals, while in other fraternities certain proportions (though usually not all of any fraternity) are fleshy or even obese. Perhaps as in the case of the Jersey as contrasted with the beef steer, the two kinds of individuals do not metabolize their food in the same way; some are spare and muscular, others lay on fat. In any case, we cannot disregard the constitutional factors in build.

From his investigations of heredity as expressed in family studies of body build, Davenport can see that no other theory than that constitutional differences as well as nutritional differences determine build is sufficient to meet all the facts. From the standpoint of the geneticist's evidence, variations in build are to be accounted for not merely by variations in intake and outgo of calories, but also by the endogenous factors that determine the "economy of nutrition" or the cost in energy of adding an additional kilogram of weight to the body. The factors involved in producing differences in these respects are hereditary factors. The hereditary factors probably work through the participation of special organs that influence metabolism, notably the endocrine glands. The latter thus intermediate between the chromosomal constitution, on the one hand, and control of metabolic processes, on the other. One naturally thinks of the influences associated with the thyroids and the pituitary glands. That other constitutional conditions than those of the larger endocrine glands may play an important part in metabolism, says Davenport, cannot be denied; probably the quality of the protoplasm of every active cell influences the bodily metabolism; but the endocrine glands proper seem, as it were, to be told off for this specific purpose; and thus peculiarities in their functioning lead to striking results.

From the statistics collected by the Eugenics Record Office of the Carnegie Institution of Washington, it appears that the diseases associated with very slender and slender

build are tuberculosis, pneumonia, "nervousness" and melancholia. The diseases associated with very fleshy or fleshy build are diabetes, nephritis accompanying it; also numerous diseases of the alimentary tract. Incidentally, it appears that fleshy parents have on the average, in their data, larger families than slender parents. Genetically, build seems to be controlled by multiple factors, with fleshiness tending slightly to dominate over slenderness. There is a marked tendency for persons of similar build (or with potentialities for such) to intermarry. Dissimilar builds are selected against.—*Jour. A. M. A.*, Feb. 9, 1924.

TREATMENT OF SEPTICEMIA AND LOCAL INFECTIONS

The intravenous injection of mercurochrome-220 soluble and of gentian violet is discussed by Hugh H. Young and Justina H. Hill, Baltimore (*Journal A. M. A.*, March 1, 1924), and illustrative cases are cited. In a case of general septicemia due to the colon bacillus, the patient being almost moribund, the condition cleared up following the intravenous injection of 34 C.C. of 1 per cent mercurochrome. The rapidity of restoration from imminent death to normal health is said to have been almost unbelievable. In a case of staphylococcus septicemia and extensive subcutaneous abscesses following severe injury an intravenous infection of mercurochrome resulted in the rapid disappearance of an extensive retroperitoneal infection (perinephric abscess) without operation. In a case of retroperitoneal abscess following bladder instrumentation, a colon bacillus infection, intravenous injection of mercurochrome caused a rapid disappearance of the abscess. In a case of carcinoma of the bladder involving the left ureter, an extensive excision was done with the cautery. Two months later pyonephrosis developed on the left side, which disappeared after intravenous treatment with mercurochrome. A case of bilateral chronic pyelitis due to *Bacillus lactisaerogenes* was treated by intravenous injection of mercurochrome with complete

cure. A case of chronic cystitis following prostatectomy, with colon bacillus and *Staphylococcus albus* infection was sterilized by intravenous injection of mercurochrome. A child, very septic from pyelitis due to colon bacillus apparently was saved by mercurochrome intravenously. In addition to these seven cases, mercurochrome has been used intravenously in several cases of pyelitis and also other local infections. In some of the cases of pyelitis the urine was promptly sterilized. In others there was improvement, but bacteria still persisted in the urine. This was true also of a case of chronic prostatitis and cystitis with colon bacillus infection in which, after the injection of 6.8 mg. per kilogram, the organisms still persisted. In other cases, however, the sterilization of the urine was very prompt and permanent after a single injection of mercurochrome in doses varying from 3 to 5 mg. per kilogram. It is evident, therefore, that the drug is not efficacious in all cases, and it is probable that colon bacilli differ from one another in their resistance to mercurochrome just as they differ markedly in other respects. In their experimental and clinical work on antiseptics, the authors have been greatly impressed with the value of gentian violet in the local treatment of staphylococcus infections. The five cases treated by gentian violet comprise just as desperate cases as some of those treated by mercurochrome, and gave just as brilliant results. In all of these cases the infecting agent was a staphylococcus. Gentian violet has had an apparently selective action against gram-positive staphylococci. Cases in which it did not affect the streptococcus or the colon bacillus are cited. In the case of gentian violet, the intravenous injection of 5 mg. per kilogram is immediately followed by a most alarming cyanosis, which

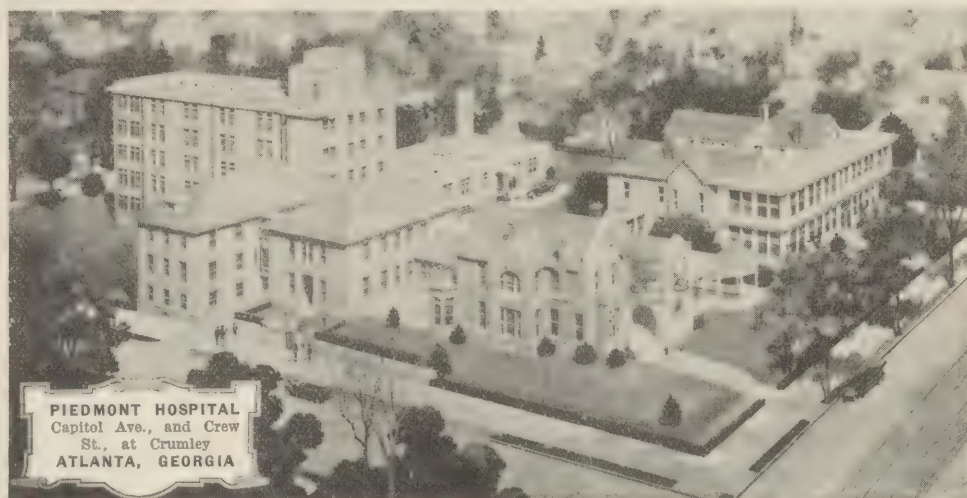
is simply due to the dye in the blood, which causes no harm and passes off in a few hours. Otherwise, practically no reaction results. The authors believe that 7, and possibly 10, mg. may be administered, once, without injury.

PHYSICAL FACTORS PERTAINING TO HAY-FEVER

It is A. G. Gould's, Ithaca, U. Y. (Journal A. M. A., March 1, 1924), opinion that there are a great number of factors which have to do with the severity of hay-fever. Some of these undoubtedly are the amount and frequency of rainfall; the amount of growth of the plants responsible for the hay-fever, which is influenced by the amount and frequency of the rainfall, the temperature and the amount of sunlight; the velocity of the wind; the amount of exposure to the pollen; the state of the anatomy of the nose, and the personal hygiene of the patient. There may be some cumulative immunity from year to year, but Gould believes that its importance has been exaggerated.

PNEUMONIA SIMULATING APPENDICITIS IN CHILDREN

The acute onset of pneumonia with few or no clinical symptoms may simulate acute appendicitis, especially in children. Abdominal symptoms of pain, tenderness, rigidity and distention may be present as in the cases cited by Paul A. White, Davenport, Iowa (Journal A. M. A., March 1, 1924). Difficulties in diagnosis are multiplied because of the tender age, lack of intelligence, or fear on the part of the patients. A severe chill at the onset, temperature over 102, and a leukocyte count near or over 20,000 should engender extreme caution and intensify efforts at differentiation. A careful urine examination should always be made.



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TECHNICIAN VERSUS OBSTETRICIAN*

E. C. Demmond, M. D.

Savannah, Ga.

The stimulus of this paper is the fact that there are certain radical tendencies among American Obstetricians to attempt an improvement on the mechanism by which women have borne children from the time of the eviction from the Garden of Eden. If these teachings are widely propagated and accepted it is the belief of many that disastrous results will ensue. There are two sides to every question, and a man may be too conservative as well as too radical; therefore it is hoped that the members of this Society will be generous in their discussion of the mooted questions, so that the questions presented can be thoroughly investigated. The problems I wish to present for your discussion are what might be termed technical aids to delivery, and are all very useful procedures when indicated; but my contention is that these procedures are invoked entirely too frequently, and it is this practice that I wish to condemn. Any mechanic of average intelligence can be taught the technique of these various procedures in a relatively short time; but Obstetricians should be more than man-midwives, they should understand the physiology of pregnancy, the mechanism of labor, the various pathological complications of pregnancy, the causes of dystocia, et cetera; all of which require years of scientific training and experience.

The first radical procedure I would like to present is that of version as practiced by Potter of Buffalo. According to my impression, Potter advocates the employment

of version as a routine method of delivery at the end of the first stage of labor, whenever feasible. His purpose is to spare the patient the discomfort of the second stage of labor, and he contends that results are as good as or better than those obtained by a more conservative conduct of labor. He goes even further and induces labor when it does not coincide with his calculated time. Rucker of Richmond is even more radical; he makes an appointment with his patient to be delivered on a certain date; uses sacral anesthesia; inserts a dilating bag; and does a version when there is full dilatation of the cervix. His patients are allowed out of bed within two or three days if they so desire. He usually arranges to have 3-6 patients in the hospital on the same day, which is quite convenient from the doctor's standpoint. Potter has undoubtedly added to our knowledge in regard to version and extraction, particularly as to technique. But it seems to me that such a procedure as he advocates is wrong in principle; women have borne children without such assistance for quite a few years, and are still doing it quite successfully; and I am sure that no one here will admit that our present generation of women are such a race of weaklings that they cannot give birth to children in a natural way. Pregnancy is a normal physiological process and there is a normal way which nature has provided for its culmination. If allowed to proceed in the natural way, only 3% of all presentations are by breech, 95% of the remaining are vertex. Why change a presentation from one that forms a very large majority and which has proven best for all the parties concerned, to one that is fraught with grave danger to the fetus and

*Read before the Georgia Medical Society, (Chatham Co.) Savannah, Ga.

adds the risk of infecting the mother by the maneuvers necessary to perform a version. It might be argued that Potter's technique materially decreases the high infant mortality in breech presentations; that is apparently true, and it would be wise to follow his technique whenever the necessity for performing a version arises. But how do his results compare with those of others who are grateful for that 95% of vertex presentations and are willing to permit a spontaneous delivery whenever possible. In 1920, Potter reported an attendance upon 1113 patients, 12 of whom were delivered spontaneously before he arrived; 1101 were delivered by operative means, including 920 versions and 80 Caesarean sections. He failed to give any figures as to the number of infections, but did state that 41 infants were born dead and 34 others died during the first two weeks following delivery, a mortality of 6.7%. In considering this, it should be remembered that Potter's patients were almost all private cases and that he personally attended all but twelve, and that he is a recognized expert in the field of operative obstetrics. Figures obtained from a large obstetrical clinic for 10,000 cases showed a fetal mortality rate of 7%, practically the same as Potter's. But consider these differences: these patients were entirely ward patients, one-half of whom were of the negro race; many admitted after incompetent treatment at the hands of midwives; and all delivered by young interns and house men; and yet their results compare favorably with Potter's, who is an expert. In this series, 34% of the fetal deaths was due to syphilis, owing to the prevalence of that disease in the colored race. As syphilis is comparatively rare in white ward patients, it is fair to assume that it is encountered still less frequently in Potter's private patients. If we subtract the fetal deaths due to syphilis, it reduces the mortality rate to less than 5%, as compared with Potter's 6.7%. Furthermore, this does not take into consideration the emergency character of many of the cases, where fetal death occurred before admission to the service; taking this into consideration,

it seems safe to assume that the fetal mortality rate of the cases comparable to Potter's series is at least one-third less than that of Potter. And what does this mean, it represents a little less than the actual added danger of version—because Potter's rate would be higher if men less competent than himself had handled the cases according to his teachings. Is it worth while, increasing our fetal mortality rate by at least 1/3, running the risk of infecting the mother, just to save the mother the discomfort of the second stage and do a little less damage to the birth canal; especially when we have so efficient an aid in nitrous oxide toward the alleviation of suffering?

Another matter I would like to bring before your attention is the abuse of Caesarean section. Caesarean sections are performed in addition to positive indications for the following reasons: It is an easy way out of many difficulties, its mortality is considered trifling in the light of present day technique, because it is demanded by some patients, because it is considered the best treatment for eclampsia and placenta previa, and sometimes possibly for self aggrandizement. Of course, we all know that it is a Godsend in certain cases; but it is invoked too frequently and is not such a safe procedure as is commonly supposed. Here are the statistics compiled by Holland on 4,197 sections done for contracted pelvis in Great Britain from 1911 to 1920:

Before labor.....	mortality rate	1.4%
Early in labor.....	mortality rate	1.8%
Late in labor.....	mortality rate	9.4%
After attempts at delivery	mortality rate	26.5%

In other words, good results when done before or early in labor; a high rate when done in labor; and a prohibitive rate when done after attempts at delivery. In 190 cases of eclampsia treated by Caesarean section, the mortality rate was 32%. Another clinic gave a mortality rate of 20% which has been reduced one-half during the past ten years under more conservative treatment. All of which seems to show that conservative measures produce better results in eclampsia

than Caesarean section. In 139 cases of placenta previa treated by Caesarean section, the mortality rate was 11.5%. In another clinic, 37 cases of placenta previa treated by more conservative measures resulted in only one death, a rate of less than 3%. Another factor not to be overlooked is the behavior of the scar in subsequent pregnancies. It has been proven that a properly closed uterus without infection heals by muscular union rather fibrous; but it is undoubtedly a place of least resistance and liable to rupture at subsequent labors. However, the old doctrine of once a Caesarean, always a Caesarean has been disproven; and the danger of rupture is much less than was commonly believed; unless the uterus was infected and a fibrous scar forms, which does not have the ability to withstand the stress of labor that a muscular union does.

There is also a tendency upon some modern obstetricians to apply forceps when there are no positive indications, the so-called prophylactic forceps. DeLee first advocated the use of forceps in all primiparae as soon as full dilatation of the cervix occurred, incising the pelvic floor to prevent a ragged laceration. We all know that forceps themselves are liable to seriously damage the pelvic floor other than that protected by the median incision; and our knowledge of birth injuries is steadily increasing and points to the obstetrician as the causative agent. The too frequent application of forceps is bound to bring into the world more defective children, crippled physically and mentally through the efforts of the well-meaning but overzealous obstetrician. In addition, the results to the mother will not compensate for the short respite from travail at the time of the second stage of labor. In DeLee's hands, it might not do harm; but in the hands of the average, such practices will be productive of much evil.

Another practice to be condemned is the induction of labor by the insertion of various bags, without due justification. Introducing foreign bodies through the vaginal canal into the uterus always carries with it the danger of infecting the uterus; therefore the indications for such a procedure should be positive

before the risk should be taken. Many times labor has been induced because the pregnancy has gone over the calculated number of weeks; and when the baby is weighed, it is smaller than the average, much to the chagrin of the doctor. Of course there are times when labor should be induced on this indication; and it is a serious reflection on the doctor's mental calibre for him to just sit and watch a fetus grow until it is too large to pass through the mother's pelvis. But we should be sure that the size of the fetus is becoming a dangerous factor before we run the risk of carrying infection into the uterus by the induction of labor. One of our northern confreres has published an article on the use of pituitrin in this role; and his results give promise that this might supplant the mechanical measures now in vogue.

And in conclusion, do not think that I am underestimating the value of these various procedures I have brought before you for discussion. They are very valuable and have saved many a life both of the mother and child; and every man who contracts to care for a woman during pregnancy should have them in his armamentarium. But I do contend that we should give the normal forces with which Nature has endowed the pregnant female a fair trial; and that we should take stock of the added risk to both mother and babe; and be absolutely sure the particular measure is indicated before employing it. And lastly, our aim should be to assist Nature rather than improve on it; in other words be Obstetricians rather than Technicians.

INSULIN AND DIET IN THE TREATMENT OF DIABETES.*

J. A. Redfearn, M. D.

Albany, Ga.

The discovery of the method of extracting insulin from the island cells of Langerhans by Banting and Best is deservedly referred to as the most notable therapeutic achievement of the twentieth century. Treatment of diabetes was unsatisfactory,

*Read before the Second District Medical Society.

despite the fact that Joslin, Allen, Woodyatt and others had done so much to advance the science of nutrition in these unfortunates. There still remained a broken link in the chain of treatment awaiting repair before much progress could be made; and this was done to the delight of millions of sufferers when this pancreatic hormone was made available in its free state, so that it could be administered in proper amounts to control blood sugar.

Banting was a young struggling orthopedic surgeon, several thousand dollars in debt when he made this wonderful discovery yet he did not choose to become a modern Croesus by selling the manufacturing rights. He was not thinking of self. His thoughts were about unfortunate diabetics who, for the most part, are poor. Medical ideals have always been on a high plane and this instance serves to remind us that the trend is still upward. This same spirit seems to have been carried home by the physicians who took work under him and dispensed in an unselfish manner. Modern crusaders, if you please. Harris and his staff at Birmingham have done a service for the doctors in the south which will benefit untold numbers of present and future sufferers. Without this knowledge, many diabetics in the rural districts would have to forego the benefits of treatment, because they are too far removed from any specialist. There are possibly two million diabetics in this country, most of whom must be treated by the general practitioner, for diabetics, as a general rule, are not wealthy. Even Lilly and Company has caught this altruistic spirit and is manufacturing insulin at a very small margin of profit, thus complying with the only request Banting seems to have made, when he gave this discovery to his Alma Mater, the University of Toronto.

Insulin assists in the assimilation of carbohydrates and seems to act as a stimulant to the nervous system, as evidenced by the delight patients get in talking about it. Doctors who are diabetics get peculiar joy in relating their experiences with this hormone. Possibly five-sixths of the island cells are

held in reserve and called on in an emergency such as follows a carbohydrate debauch. Some authorities believe that the normal stomach will vomit a large amount of sugar ingested instead of retaining it and allowing sugar to show in the urine. This should be an interesting question for some doctors who live in the center of the sugar cane industry. Quite naturally, it follows that the more diseased the pancreas the more need for insulin. If the reserve is already totally destroyed, the diabetic will probably have to take insulin the balance of his life; if only partially destroyed then the administration will be for a period of cell recuperation. Only about 30 to 40% of diabetics ever have to take insulin and part of these for a while only, provided they are properly dieted.

The normal blood sugar range is from 80 to 120 mgs. per 100 cc. Many diabetics, particularly the mild cases, can be kept within this range through diet and will not need insulin. Education then plays the leading role with the doctor assisting as teacher. The diabetic must be taught to weigh his foods, count his calories in proteins, carbohydrates and fats, examine his urine for sugar and diacetic acid, and administer his insulin. These duties may appear puzzling to the physician and patient at first but, after a short period of study, the matter becomes clear. Any individual of average intelligence can master the subject sufficiently within two weeks to do all these things correctly. The physician will need to check up on the urine and blood chemistry about once a month or as often as indicated. While it takes more time to examine for blood sugar, it is not much more difficult than the urine examination. A very simple and satisfactory method is that of Myers-Benedict. The Folin and Wu is more accurate but the former answers the purpose generally. The test may be done in the patient's home if need be.

The dose of insulin is determined in each individual case. Some will need only one small dose a day while another will need several large doses. Mild cases that have to take insulin may need only five to ten units

in the twenty-four hours while severe cases may need several times this amount. As much as one hundred units have been given in a single dose in coma cases. However, twenty to forty units and repeated as indicated by blood and urine chemistry is a more rational procedure. Joslin recommends that the first dose in the mild cases be 1 unit, second dose 2 units and increasing in this manner until 5 units are given three times a day, then increasing or decreasing as glycosuria and calories require. In coma cases he advises larger doses without giving glucose intravenously. Other authorities advise large doses of insulin and safeguard the patient by intravenous sugar. Too much insulin may bring on a hypoglycemia and thus cause a reaction so that the patient should have available some glucose, syrup, candy or fruit juice to take as soon as definite symptoms arise. The symptoms are nervousness, hunger, weakness, sweating, pallor, and in severe reactions, coma. There should be food in the stomach at the time of the administration of insulin or soon after. Some advise giving the dose thirty to forty-five minutes before meals. So the important thing is to have available sugar in the blood in due time after the dose. Decide on some rule and adopt it. Most diabetics will have to learn to administer their own insulin or have some member of their families do so, because several trips each day by the doctor is too expensive for the patient and works undue hardship on the doctor. The writer has one negro who can neither read nor write, yet she is administering her own insulin and measuring her food.

Some General Rules With Particular Reference to Diet.

First of all a diabetic manual should be purchased, Joslin or Allen being quite satisfactory; next a pair of scales weighing in grams and the necessary laboratory equipment. A few test tubes 30cc in size, two of which are graduated in tenths, volumetric pipets from 1 to 10 cc., a few ounces of standard glucose solution, some potassium oxalate crystals, picric acid crystals, and some sodium

carbonate. In most cases it is best to leave out of a diabetic's diet bananas, bread and milk. Bran biscuit may be substituted for bread when a patient will not agree to giving up bread. Never starve a diabetic with the idea of getting his urine sugar free but figure his basal or maintenance diet and keep him eating using insulin when indicated, which will be determined by the severity of the case.

Blood sugar examinations are necessary because there may be no glycosuria and a marked hyperglycemia; on the other hand, there may be a low blood sugar or a normal blood sugar with sugar in the urine. The latter is found in low kidney threshold. It is manifestly unfair to give a diabetic insulin without laboratory and dietetic measures. Diet alone may suffice and thus save patient money and much anxiety. Carbohydrates are necessary to metabolize fats, in other words fats are burned in the carbohydrate flame. Acute infections, even colds, reduce tolerance for carbohydrates and weeks of treatment may be lost. If insulin is being taken the amount will necessarily have to be increased. Learn some formula and familiarize yourself with the workings of it. The following which Banting and Harris use is simple and satisfactory:

$$\begin{aligned} M &= K \times 25 \\ CH &= \frac{2}{3} K \\ M - P \\ CH &= \frac{\quad}{31} \\ F &= 3CH \end{aligned}$$

Example

Basal diet of a diabetic weighing 110 lbs. (50 K) would be $50 \times 25 = 1250$ cal.

$$\begin{aligned} 50 \times 2 \\ P &= \frac{\quad}{3} = 33.3 \text{ grams} \times 4 = 134 \text{ cal.} \\ 1250 - 134 \\ CH &= \frac{\quad}{31} = 36 \text{ grams} \times 4 = 144 \text{ cal.} \\ F &= 36 \times 3 = 108 \text{ grams} \times 9 = 960 \text{ cal.} \end{aligned}$$

After estimating the basal diet of children add 10 to 20% to take care of growth; in the

adult above 50, deduct 10%. Now proceed to figure the amount of food for the day, using largely the 5 and 10% vegetables and fruits chiefly for bulk next the meats decided upon, and finally the fats. Don't forget the vitamins, so butter and cream and raw vegetables should be included.

Harris is of the opinion that blood should be examined within twenty minutes after it is secured. Dennis and Aldrich discovered that by adding one drop of 40% commercial formaldehyde to every 5cc of blood it would keep as long as four days.

Finally, insulin is a great boon to surgery. It does not cure diabetes; but it prolongs life and builds health. It is inert when taken by mouth or any other way except hypodermically or intravenously, because trypsin and pepsin destroy its potency.

MUCOUS COLITIS*

L. G. Neal, M. D.

Cleveland, Georgia

Excepting the various nervous and mental diseases, I don't think there is any chronic disease or condition in which the distressing symptoms are more out of proportion to the demonstrable pathology than in mucous colitis. As to whether the subject is one for the gastro enterologist, proctologist, or neurologist is very hard to say. Perhaps each have a just claim. Since it is one which so frequently confronts the general practitioner first it seems to me a problem worthy of some consideration by him. Just as it is possible to have an active prodromal stage in an acute exanthematous disease before the typical rash appears, is it not possible to have a patient suffering with mucous colitis for some time before the typical mucous appears in the stool? Take as an example, measles where the rash appears usually about the fourth day after the onset of the disease, and the duration of an uncomplicated case of fifteen days. Then set the active duration of mucous colitis at two years. It would by comparison not be out of proportion to expect some cases of mucous colitis to exist for

six months or more before the mucous appears in the stools. This no doubt accounts for many cases never being recognized. It is much more common than text books would lead us to believe especially when we find only a page or less devoted to the subject in the average text book. It is just as common or more so in males than in females. This condition might be defined as one characterized by an excessive formation of mucous in the colon with a tendency to mental instability and fatigue.

Etiology unknown: According to Stauffer some infection plus incomplete elimination is the cause of most cases. Since we are waging such warfare on oral sepsis and the other foci of infection it appears to me that we would have fewer cases than in the past. On the other hand we either have more cases or else we are more on the alert in our diagnoses.

The fact that all patients give a history of eating greatly of cereals and very little of the essential tissue building foods and vitamins, we at once suppose the cause to be a dietetic error and more especially when considering the mental instability and chronic fatigueability of the individual. The close resemblance of this condition to pellagra is very striking. I think all cases of mucous colitis unless arrested eventually terminate in pellagra.

The pathology, according to Bastedo is very indefinite and at times there is none at all. In some cases the caecum and ascending colon removed at operation show a universally distributed area of inflammation, with marked dilatation. The colon is often redundant or looped.

Symptoms. For convenience these might be classified as nervous and gastro intestinal.

1. Nervous headache is very common especially on exertion or worry, there is insomnia, usually dissatisfaction with life, and the opinion of never getting well. There often are delusions of persecution, and at times this may approach insanity, usually of the depressed type.

2. Gastro Intestinal. Gastric fullness usually is more marked after taking food.

*Read before the Ninth District Medical Society.

Not usually preceded by nausea. At times taking food into the stomach is painful. Vomiting is not common. Constipation is present in nearly all cases. I have never found diarrhea in an uncomplicated case. There may be a frequency in attempts at stool but in these cases usually mucous and gas is all that is passed and may be accompanied by considerable straining, altho the fecal mass remains. Gas is frequently annoying and quite often the eructations are very forceful and at times almost constant, and this is usually aggravated by worry or excitement. Very few cases escape pain at some time during the course of this condition. It may be in any part of the abdomen but it is more constant in the epigastrium and the hepatic and splenic flexures of the colon. Mucous is usually but not invariably noticed by the patient. When observed by him it is more noticeable after a purge. Physical examination reveals very little. Pressure in any part of the abdomen is usually painful especially in the upper third. Visceroptosis is common. The abdomen is tympanitic usually marked over the colon. Mucous when observed is viscid of dirty brown, or grey color, and may vary in size from a small scab like a flake to several inches in length.

The diagnosis is not always easy and if we expect to make a diagnosis only after mucous appears in the stools a great many cases will never be diagnosed. There are several conditions which might be confused with this one. The most common are: Pellagra, malignancy, tuberculosis and syphilis.

(a) Pellagra is a great many times impossible to rule out, but since the treatment in both cases is practically the same the differentiation is not so essential. In the beginning of mucous colitis there is usually hyperacidity, and in pellagra there is hypoacidity. Also in the latter there is more tendency to cutaneous involvement.

(b) Malignancy and tuberculosis are usually accompanied by anemia if either have existed for any length of time. In malignancy the pain is usually more pronounced and bears a constant relation to the taking

of food, and in tuberculosis there is quite often evidence of tuberculosis elsewhere.

In syphilis the Wassermann may be of value but in questionable cases with a negative Wassermann the therapeutic test is of more value. One of the most stubborn cases of supposed mucous colitis with a negative Wassermann responded to .2 grams of Salvarsan and mixed treatment and later showed a positive Wassermann. The history of spitting, rather than vomiting food, vague pains in the abdomen existing for some time in a well nourished individual and no appreciable physical findings while not pathognomonic is highly probable of mucous colitis.

Treatment. It should be borne in mind that the condition is a general one with a local involvement of the colon. Therefore general therapy should be applied rather than placing so much stress on the colon. The latter only serves in a great many instances to aggravate the condition. The most important therapeutic measures are: (1) Mental reassurance. (2) Diet. (3) Regulation of exercise. (4) Medicinal and symptomatic treatment.

(1) Mental Reassurance. After the diagnosis is made the patient should be informed that, while difficult to treat, the condition isn't as hopeless as most patients regard it. That he can't expect perfect comfort. A great deal of patience will be required and that marked improvements cannot be expected at once. That it will take from six to twelve months, or even longer to arrest the condition and effect a cure.

2. Diet. In the beginning it should consist of milk, cheese, fresh fish, eggs, gelatine, butter, small amount of bread, preferably graham bread, adding gradually the bulky vegetables and pork, beef, chicken, mutton, and fruit. The following articles should be prohibited: Fancy salads, condiments, canned goods of all kinds, extracts and alcohol.

3. Regulation of exercise is very hard as it is just as common for the school teacher or bookkeeper to be affected with this condition as the active laborer. A change usually benefits either. One who does office

work can exercise by walking to and from the office. Tennis, or horseback riding should be advised, provided they are not done in excess. On the other hand one who does manual labor should be advised to rest at least two hours daily. The most important thing is being regular—to retire at night and rise in the morning.

4. Medicinal and symptomatic treatment. In this as in all other conditions in medicine, the fewer drugs taken, the better. The two most useful are: Arsenic, and belladonna. Arsenic in the form of Cacodylate of Soda, administered intravenously to the limit of tolerance is the most valuable one. Tincture of belladonna in a three drop dose after meals until the throat becomes dry, or voice husky, or the vision impaired. It may be necessary in some cases to increase the dose. This quite often relieves the choking sensations, lessens the mucous, also the pain. Gas is often distressing and is usually lessened by charcoal, ten to twenty grains every three hours. Pain in the upper third of the abdomen when there is hyperacidity, usually responds to sodium bicarbonate, dram one-half with bismuth subnitrate one dram, after meals. If hypoacidity is present, hydrochloric acid should be given. Pain in the lower abdomen is usually relieved by the above methods. If these should fail, relief may be had by absolute rest in bed and a high colonic irrigation of sodium bicarbonate half ounce to a quart of water. In some cases a narcotic is required, if so, codeine is the drug of choice and should be given with caution, as the patients are easy victims of the drug habit. Constipation is better controlled by the diet, although in some cases drugs have to be administered. If hyperacidity is present, magnesium citrate is my choice. Otherwise castor oil in big doses is usually satisfactory. Some cases respond well to an occasional dose of calomel. Mucus will be better controlled by general therapeutic measures. The colonic irrigations given occasionally are beneficial. Any colonic injection frequently repeated does more harm than good.

Conclusions

1. Mucus Colitis is more common than we once thought.
2. It is equally, or more common in males than in females.
3. It should be regarded as a general condition with a local manifestation.
4. If we would devote as much time to this condition as we do to acute abdominal conditions fewer cases would drift into the hands of Osteopaths, Chiropractors, and the various other guarantee cash in advance cults.

*Bastedo W. A. Jour. A. M. A. Jan. 24, 1920. Treatment of Mucus Colitis. Stauffer W. H. Jour. A. M. A. Nov. 27, 1920. Mucus Colitis.

LOCAL ANAESTHESIA IN ANO-RECTAL DISEASES

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The specialty of Proctology in the South is something of an innovation, like that of Pediatrics and Orthopedics of two decades ago and the day is not far distant when it will be recognized by laity and profession as they are now recognized.

Nerve Supply: To be able to properly choose cases for local anaesthesia some knowledge of nerve supply is essential. The nerve supply of the movable rectum is comparatively sparse, hence the reason why operations in this area may be performed with very little pain without any anaesthesia, such as polypi, etc. On the contrary, local anaesthesia should be handled with the greatest skill and patience on the part of the operator in the rectum proper and anal region. The nerve supply of the region comes from the two great systems; Sympathetic and Sensory. The Sympathetic nerves arise from the inferior mesenteric and the two pelvic plexuses being distributed in the walls of the movable rectum, internal sphincter and adjacent mucosa arranged in two plexiform net works (Auerbach's Plexus) supplying longitudinal and circular layers of muscular coats ramifying with Meissner's Plexus of the sub-mucosa.

Anal Canal: The sensory nerve supply comes from cerebrospinal fibres of the third and fourth sacral and internal pudic nerves. The inferior hemorrhoidal also supplies the external sphincter and muco-cutaneous portion of the anal canal. The upper portion of the anal canal being supplied by both systems. Reflex pains are frequently felt in disease of the rectum around the bladder, lumbar and sacral regions as a result of the common origin of the sensory nerves. We have typical examples of this in so-called lumbago and sciatica.

Indications: The indications for local anaesthesia in ano-rectal diseases are fissures, peri-rectal abscesses, superficial tubercular abscesses, straight fistulae particularly of the blind external type, thrombotic external and internal hemorrhoids, skin tags, fibromata, lipomata, papillomata, cysts, polypi, muomata, cryptitis, small anal strictures, moderate degree of prolapse and dermoid cysts. The Whitehead operation has been successfully performed by some surgeons under local anaesthesia.

Contra Indications: The first contra indication is the lack of patience on the part of the operator. Recently I had an opportunity to assist a surgeon in an abdominal operation done under local anaesthesia who did not have the patience to wait for the anaesthesia to have the proper effect, but proceeded to use his knife to the agony of his patient and the disgust of those about him. The greatest success in this work awaits the man with enough patience and regard for the welfare of the other fellow who has placed himself in his hands.

Children and very nervous individuals are not good subjects for local anaesthesia except in rare instances, and then only after a hypodermic of morphine thirty minutes previous to the operation. For the sake of thoroughness the horseshoe and branching fistulae, the recto vesical, recto vaginal and recto urethral fistulae should not be undertaken on account of the inaccessibility of the parts. Strictures, malignant tumors and complicated hemorrhoids also should not be undertaken.

Drugs: There are a number of drugs and agents that are used in local anaesthesia but for the sake of brevity I shall mention only a few: Cocaine, 1/5 of 1% to 1% is advised according to the operation in hand; Adrenalin, 5 to 10 drops to the ounce is said to delay absorption of the former drug. A caution in the use of this drug is the tendency to bleeding after operation when adrenalin is used. Novocain in 1/2 of 1% to 1% has the advantages of being less toxic, freely soluble, unchanged on sterilizing, producing little swelling at time of operation and no inflammation afterward. Quinine and urea hydrochloride is recommended by Hirschman as having the advantage of being less expensive and having a more prolonged effect, being used in the same strength as the above. It has, however, been known to produce gangrene of the parts. Ethyl chloride has been used with advantage in incising perirectal abscesses of the bulging type. Apothesine has proven very satisfactory in my experience.

Technique: On account of the location, preliminary preparation should be more carefully carried out than in other part of the body. A preliminary laxative the night before the operation may or may not be given according to the individual taste of the operator. Cleansing enemata two hours previous to the operation so as to allow all contents of the lower colon to be evacuated is advisable. Morphine and atropine thirty minutes before the operation according to the temperament of the patient and the type of operation to be performed, is advised. Washing the parts with soap and water and bichloride of mercury 1/2000 is a good preparation for the area and field of operation. Tincture of iodine is admissible when it does not come in contact with the mucuous membrane. Phenol at point of initial needle puncture is a nicety which should not be overlooked as it may mean the "make or break" in the confidence of the patient. The first few drops should be injected very slowly and this may be followed by a more deliberate use of the solution in the deeper parts.

Technique of Special Parts: For dilatation of sphincters; a needle about two inches in length of very fine calibre should be used. One or two drops are injected in the integument, then the needle is forced into the external sphincter, where eight or ten drops are injected, depending on the strength of the solution. The left index finger is then inserted in the rectum and the internal sphincter is brought in contact with the external sphincter, where eight or ten drops are likewise injected. This procedure is continued without withdrawing the needle from the skin until the area surrounding the posterior half of the rectum is deadened. A similar process is carried out in the anterior commissure. By inserting the needle 1/2 inch from the muco-cutaneous margin you will have complete anaesthesia for dilatation of the rectum with only two needle punctures in the integument.

Thrombotic External Hemorrhoids: By making punctures in the manner described above one may practice incision or excision or both with the same impunity as under general anaesthesia.

Fissures: The majority of the fissures occur in the posterior commissure. One may do the incision operation by the injection into the commissure where the lesion occurs as in technique for dilatation of sphincter, remembering that it is necessary to anaesthetize only 1/2 of the area whereas the entire area should be injected if the dilatation method is desired.

Internal hemorrhoids require dilatation of the sphincters and only the suture method should be practiced. The base should be surrounded with a normal strength of solution however, a solution three or four times stronger should be used in injecting the hemorrhoid proper.

Marginal abscesses require a strong solution and should only be injected along the line of incision. Fistulae of the straight uncomplicated type should be attempted under local anaesthesia. A 10% methylene blue in peroxide of hydrogen injected in the fistulous tract is an excellent method of tracing out branches of fistulae of the branching type.

A CASE OF CHRONIC MALARIAL INFECTION WITH ITS MEDICAL AND SURGICAL SEQUELAE OCCURRING IN THE MOUNTAINS OF NORTH GEORGIA*

George Massalon Murray, M. D.

Atlanta, Ga.

I wish to report a case of chronic malarial infection with its medical and surgical sequelae, occurring in the Blue Ridge Mountains of North Georgia.

On December 18, 1923, Mrs. A. M. McF., a young housewife, age 31, who was born in Dahlonega, Lumpkin Co., Ga.—now a resident of Whitestone, Pickens Co., Ga., a few miles south of Ellijay, Gilmer Co., Ga.—presented herself to me for examination and treatment. Her peregrinations have been limited to the counties of Lumpkin, Pickens, Gilmer, Bartow, and to Copperhill, Tenn. Her first visit elsewhere was to Atlanta in December, 1923. She lived in Dahlonega, the place of her birth, until she was three years old and in Ellijay from the age of three until she was nineteen.

She married in 1909 at the age of seventeen, weighing at that time 130 pounds. Shortly after her marriage she had an undetermined condition from the effects of which she would be prostrated for a day or two at a time but as quickly recover, apparently, from the attack. This state persisted for some weeks. Intermittent fever was one of the symptoms, but it was never clearly determined what the true condition was.

In 1909 she became pregnant but miscarried. In 1912 she became pregnant for the second time and was delivered of a full-term boy baby. At this time Mrs. McF. weighed 160 pounds.

From the patient's description of the condition of her anterior abdominal walls following the full-term delivery, it would appear that she had experienced a diastasis of the recti muscles which caused her no great inconvenience at that time.

When her baby was two years of age, Mrs. McF. became afflicted with bronchial asth-

*Read before the Davis-Fisher Sanatorium Staff, Monthly Meeting Feb. 11th, 1924, Atlanta, Ga.

ma, was rapidly becoming obese to an alarming degree and out of all proportion to her height (about 5 ft. 6 in.). She stated that during the asthmatic paroxysms her respiratory efforts would precipitate unusually violent attacks of coughing; and it was during one of these seizures, about four years ago, that a tumefaction became evident, slightly to the right of the midline, just above the level of the umbilicus. The asthmatic condition has been more or less persistent since its inception—the paroxysms becoming more frequent and severe each succeeding year, and the tumefaction appearing on the anterior abdominal wall has increased in prominence and size. She has been afflicted with a generalized acne vulgaris for the past ten or twelve years. While she has been irritable, nervous without apparent cause, depressed and melancholic—as contradictory as it may sound—she states that she has never lacked assurance in any undertaking—but self assurance is characteristic of our mountain people.

An abstract of the examination of this case may be of some interest. **Patient**, a married woman born in Dahlonaga; present home address Whitestone, Ga.; age 31; married in 1909; occupation, a housewife; peregrinations as aforementioned; family history—father died of abscessed liver, mother living and in robust health, one brother thin but with fair health, two sisters thin but in fair health, one brother dead—cause of death not clearly remembered. Mrs. McF., the patient, has had the diseases of infancy and early childhood, typhoid fever at the age of 13, asthma since 1914, has had a growth removed from the right side of her upper gum, from her description of which I would assume that it was a fibrous epulis. Addictions: coffee and coca-cola, no alcohol or tobacco. **Present complaint**: asthmatic attacks, great physical weakness, faints easily, cries frequently, becomes dizzy and blind when she stoops, chills very easily, has cold feet more or less constantly, has varying degrees of constipation, fat rapidly increasing to an alarming degree.

Symptoms: cardio-respiratory, heart dis-

turbance—occasional manifestations but of slight degree; classical symptoms of asthma. Gastro-intestinal, moderate degree of constipation; genito-urinary, a slight leukorrhoea and urination frequently urgent. Began menstruation at the age of sixteen. Latest menstruation began Nov. 21, ended Nov. 26, 1923. Sense of well-being: cyclic—two or three days good, two or three days tired and weak, never ebullient. Equilibrium: dizzy and has blind attacks, especially when she stoops.

Physical examination: **inspection**, generalized acne (acne vulgaris more or less generally distributed over face, body and extremities); **palpation**, hernial opening, anterior abdominal wall; **percussion**, difficult; auscultation, confined to heart and lungs; functional heart murmur, systolic in time, haemic in type; **lungs**, musical breath sounds generally distributed over the upper right and left anterior and posterior chest; **menstruation**, limited to taking height (about 5 ft. 6 in.); weight, since marriage, minimum 130 pounds, her estimate of weight (at time of examination) 230 pounds, actual weight 240 pounds. Head: teeth, moderate degree of repair; eyes, sclerae injected and icteric, right tonsil strutted clear of both pillars. Extremities: upper and lower, acne vulgaris very prominent; deep reflexes—markedly decreased. Abdomen: tumefaction produced by herniation, 12 to 15 cm. diameter. Inguinal canals—negative. Rectum: marked degree of stenosis, probably due to deposition of peri-rectal fat but no untoward symptoms resulting therefrom. Pelvic: several minute fibroids, small, shot-like in size on the vaginal aspect of the cervix. Perineum—intact. Superficial glands—negative. Skin—acne, not a healthy hue.

Clinical examination: White blood:

Polynuclears—56%.

Small lymphocytes—31%.

Large lymphocytes—9%.

Eosinophiles—4%.

Pigmentation of white blood cells—present.

Granulation of red blood cells—negative.

Tertian type of malarial organisms positively identified.

Wasserman—negative.

Blood pressure: systolic—110 mm.; diastolic—80 mm.

Haemoglobin—70.

Urinalysis—negative for albumin and sugar.

Feces—no ova or blood.

Diagnosis:

- (1) Chronic malarial infection.
- (2) Relative degree of anaemia.
- (3) *Acne vulgaris*.
- (4) Asthma, bronchial.
- (5) Hernia by diastasis following childbirth, later exaggerated by expiratory efforts in asthmatic paroxysms and coughing together with the drag of weight of abdominal fat.

(6) *Adiposa dolorosa*.

(7) Functional heart disturbance with functional heart murmur.

Conclusion (from immediate response and satisfactory results obtained from appropriate therapeutic measures): It is my belief that this is a case of long-standing, unrecognized, chronic malarial infection without treatment of the condition as such. The evidence to my mind is that the malarial paroxysms preceded the asthmatic condition in this case, that the chronic malarial infection with a consequent altered blood state was a prominent—if not the main factor—in the production of the asthmatic condition.

Chronic malarial infection with its altered blood state is a very frequent cause of *acne vulgaris*, as I have found, in the great majority of cases of recognized chronic malarial infection or of the chronic malarial state, that *acne vulgaris* in some degree was present.

My belief that chronic malaria may induce asthma in our section of the country finds support from histories collected by me in a number of cases, as well as in this case of Mrs. McF., where chronic malarial infection was unrecognized and untreated; or in cases where if recognized, were inadequately treated the chronic malarial infection playing the initial role with an asthmatic con-

dition following, in the wake, in a year or two or a few years.

The hernia was produced primarily at the sight of the diastasis of the recti muscles and exaggerated by the violent expiratory efforts in asthmatic and coughing paroxysms, aided by the drag of heavy fat in an obese, pendulous abdomen.

Adiposa dolorosa in this instance is due to altered metabolism induced by the depraved blood state of chronic malaria.

Functional heart disturbance in this case is due to malarial toxæmia and the consequent altered blood state.

PHENOLPHTHALEIN ERUPTIONS WITH A CASE REPORT*

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Atlanta, Ga.

It has been only a few years since the condition, phenolphthalein eruption has been sifted from the erythemata group of diseases of the skin. Abramowitz (1) first directed attention to this condition in January, 1918. Later a most excellent article by Wise and Abramowitz (2) deals with the condition at length.

The eruption usually makes its appearance on the lips, genitals and covered portions of the body as erythematous maculopapular lesions varying in size from a pinhead to a powder puff. The lesions when active resemble wheals. There is definite infiltration. The color varies from pink or red to slate. Lesions are usually discrete. In moist regions as the lips and genitals they are often seen to be oozing, eroded or even ulcerated. On subsiding the site of the lesion is marked by a brownish pigmentation. This is persistent for months, even years, when the drug has been taken for a long period. Relapses usually occur following ingestion of the drug. They appear in the pigmented spots left from the primary lesions. However new lesions often develop with each recurrence.

At the outset, there is itching of varying degree which lasts from a few hours to several days and indefinitely if the drug is not withdrawn. Patients may or may not com-

*Read before the Fulton County Medical Society, February 21, 1924.

plain of headache, malaise, nausea or nervousness.

The following case is the first to be reported from this State. This condition is an uncommon one, but promises to be more so in the future because of the numerous patented laxatives, on the market, containing phenolphthalein.



Eruption on Buttock and Hips

Case Report

Picture shows active lesions. M. B., Russian Jew, age 28, presented himself on Nov. 8, 1923, complaining of an itching eruption immediately after using a rented bathing suit. He first noticed an itching purple lesion on the left hip. Soon others appeared over body. In a few days the itching stopped and the places appeared to be disappearing. Other attacks followed. At no time did the dark spots disappear entirely. Present attack has existed several days.

Family and past history negative.

General examination, except that of skin, negative.

Urine, negative.

Skin: Over lumbar region, buttocks, thighs, penis and lower lip are seen circumscribed, circular and oval macular and maculo-papular lesions varying in size from a split-pea to a silver dollar. They are pinkish, purple and slate colored. On the lip and shaft of the penis they are eroded and painful. Those on the glans are shiny and suggestive of lichen planus. Over the back, buttocks and thighs they are wheal-like.

Patient denies having taken any medicine, especially laxatives. On Nov. 10th, lesions were regressing and patient was relieved of itching. Still denies taking any medicine.

On Jan. 21, 1924, patient stated he had not been troubled with itching any more since

his last visit. Brownish pigmented macules marked the site of the lesions. Patient did not care to investigate the condition further.

10 days later he returned with an acute attack, at which time the above photo was made. The wheal-like character of the lesions was more marked at this visit and there were new ones. He still denies taking any drug. 5 days later, after the attack had subsided patient was instructed to take a phenolax wafer each night for 3 nights. Now he recalled having taken same medicine several months ago before and during his first attacks but not recently. Patient reported back 4 days later stating he took the tablet the first night. The following day at 4 P. M. the old places became red and the itching returned and he was afraid to take any more. Two weeks later patient stated he was taking ex-lax before his last attack, which contains phenolphthalein.

Comment

Wise and Abramowitz failed to get positive skin reactions in cases of this affection. They therefore, concluded the eruption was probably due to a split-product of the drug similar to the split-product of antipyrin and arspenamin, two drugs also known as being capable of producing fixed eruptions in susceptible persons.

Conclusions

The eruption due to phenolphthalein is known as a "fixed eruption".

All 5 cases reported by Abramowitz occurred in Jews. All cases reported by other observers, in which the nationality was stated, were Jews. Is this condition more likely to occur in Jews?

The above case illustrates the necessity of repeated questioning to get a correct history of drug taking.

There are about forty or fifty patented laxatives, on the market, containing phenolphthalein. The presence of this drug can be determined by the addition of a weak solution of sodium hydroxide, to the suspected drug, phenolphthalein being an indicator.

1. Abramowitz: Erythema Multiforme associated with Cutaneous Pigmentation (Melanin). Jour. of Cut. Diseases 36:11-28, January, 1918.

2. Wise and Abramowitz: Phenolphthalein Eruptions. Archives of Dermatology and Syphilology. 5:297, March, 1922.

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

EXTENSION MEDICAL TEACHING

That "knowledge is power" is an aphorism known to every school boy. Herein lies the weapon—the only real weapon—the medical profession possesses with which to combat irregular practitioners of every description. Nearly half a century ago Dr. J. M. Toner, President of the American Medical Association said: "He who does not constantly keep adding to his knowledge and increasing his resources must soon fall behind the more enterprising and better informed of his contemporaries. The physician who does not know that the community in which he lives is keeping a constant watch on him, and contrasting his knowledge, skill and success in his profession with those of the best and most successful medical men within the range of their reading or acquaintance, shuts his eyes to an important fact of great interest to himself". This half-century old statement is even more true today.

The most important problem facing us in Georgia today is not legislation but educa-

tion. Since it is manifestly impossible for many of our busy practitioners to leave their work and go to one of the large centers for post-graduate instruction why not take the teaching to the physician? The work of the University of Pennsylvania, the pioneer in this line of endeavor, is summed up by Dr. Butler as follows:

1. "It has been proved that university teaching can be carried to the general practitioner in country districts.

2. "The doctor can avail of the opportunity without serious interruption to his practice and without excessive cost.

3. Success depends primarily on an experienced corps of medical teachers who must appreciate the limitations and practical needs of their students.

4. "A central co-ordinating body—the university—is essential, and there must be close contact between this central point of control and the officers of the group.

5. "An optimum place in which to conduct such a course is a well established hospital with ample facilities and with ample opportunity to secure an abundance of 'clinical material'.

6. "The group must have a nucleus of workers, and these workers must be ready to carry the burden of the local preparation for the teaching periods."

North Carolina with a rural population of 71% has extension of post-graduate courses offered in thirty-three different towns in practically all sections of the state with an enrollment of over seven hundred physicians. These were conducted by the Extension Division of the School of Medicine of the University of North Carolina in co-operation with the State Board of Health and the State Medical Society.

If this can be done in other states, why not in Georgia? We feel sure that the Medical Department of the University of Georgia and the School of Medicine of Emory University will gladly co-operate with us. The Medical Association through its district and county societies should take the lead.

ANNUAL CLINIC MEETING OF THE EMORY ALUMNI

The sixty-ninth annual reunion of the Alumni Association of Emory University School of Medicine, will be held in Atlanta, from June 2nd to June 6th, 1924. Dr. John M. Poer, of West Point, Georgia, is president of the Association, Dr. J. W. Roberts, Secretary-Treasurer, and Dr. W. E. Person, Chairman of Committee on Clinics.

The program will open with registration at the Emory Section of the Grady Hospital, on Butler Street, from 8:00 until 10:00 o'clock, Monday morning, June 2nd. The meeting of the Emory University Alumni Association takes place on the campus of the University, at 11:00 A. M. At 12:00 o'clock luncheon will be served to all alumni of Emory University, including the alumni of the Medical School. At 2:00 P. M. Dr. Geo. Bachmann, Professor of Physiology, will give a demonstration on, "The Physiology of the Digestive System."

At 6:30 P. M. a supper and smoker will be tendered the visiting alumni, at the Wesley Memorial Hospital. Dr. Phinzy Calhoun will read a paper on, "The Early History of the Atlanta Medical College," and Dr. J. L. Campbell will read a paper on "The History of Medicine in Georgia."

Clinics will be held in the various hospitals of the city Tuesday, Wednesday, Thursday and Friday. Surgical clinics will occupy the hours from 8:00 to 10:00 A. M., with clinics in general medicine, pediatrics, and neurology taking the time from 10:00 to 12:00 o'clock. Demonstration in eye, ear, nose and throat work and other specialties will be given in the afternoon, beginning at 2:00 o'clock. The greater portion of this work will be done at the Grady Hospital, but interesting cases will be shown and treated at the Wesley Memorial Hospital, Georgia Baptist Hospital, Piedmont Sanatorium, Davis-Fischer Sanatorium, Spelman Hospital, and Dr. Noble's Private Sanatorium. The alumni of the school are not only invited to Atlanta to attend medical and surgical clinics given by the faculty and

alumni, but also to be present at the course of venereal disease clinics given under the auspices of the Georgia State Board of Health, at the Gray Clinic. Dr. Joe P. Bowdoin, of the Board of Health, will have charge of this feature, assisted by Drs. W. B. Emery, E. G. Ballenger, and other members of the faculty.

Thursday night, June 5th, the regular semi-monthly meeting of the Fulton County Medical Society will be held at the Academy of Medicine. Dr. C. W. Strickler has been invited to discuss the use of veratrum and aconite, to be assisted by guests invited from other states.

On Friday night the regular meeting and banquet of the Association will be held at the new Atlanta Biltmore Hotel. This banquet will be tendered by the Atlanta alumni to the visiting alumni and graduating class of 1924. This is the third year the week of clinics have been held by the alumni of Emory University. Attendance has been large and enthusiastic and it is believed that an even larger number of alumni and visitors will be present this year.

The detailed program for the week is now in course of preparation and will be mailed to all alumni during the month. In the meantime, information may be obtained from Dr. J. W. Roberts, Secretary, 436 Peachtree Street, Atlanta, Georgia.

"MENTAL AND SPIRITUAL HEALING"

Some Press-Agent Work for an Alleged Text Book for Physicians

Medical journals and newspapers have recently received a bid for free publicity to be given a book entitled "Mental and Spiritual Healing: All Schools and Methods." The book is said to be "A Text Book for Physicians and Metaphysicians" and purports to be written by one Pierson Worrall Banning of Los Angeles. The publicity material comes as three pieces of printed matter. They all deal with the alleged fact that Banning's book has brought to its author the "major award" of the Benjamin Franklin Fund" of London. One of the pieces of

printed matter is a photographic reproduction of a news item from the New York Times, Jan. 31, 1924. This item is to the effect that more than one hundred and fifty years ago Benjamin Franklin put £100 in the hands of members of the Society of Friends as a trust and that this was to be invested, with its accumulations, for not less than one hundred and fifty years. After that time the money that had accumulated was to be awarded to individuals who made the "most valuable contributions to science" on the general subject of cures" and with particular emphasis on the part that "mind treatment might have in the recovery and preservation of health."

The story goes on to state that the first award has just been announced in London and that Pierson W. Banning had received £2,500 as the "Major Award" for his book "Mental and Spiritual Healing"; that Charles P. Steinmetz got the second award of £1,000 for a privately published treatise, "The Nervous System as a Conductor of Electrical Energy" and that a minor award of £500 had gone to a Japanese living in Tokio. So much for the ground work of this story as it appeared in the New York Times last January.

Another one of the three pieces of printed matter purports to be a "Feature Sketch" of Banning. This also stresses the alleged claim that Banning had received the major award with Dr. Steinmetz, a poor second. It states, too, that Banning's book was submitted to the Benjamin Franklin Fund Committee "by Dr. Franklin C. Wells, Medical Director of the Equitable Life Insurance Company of New York." Dr. Wells and Dr. Steinmetz are both dead.

Before discussing the book itself, the readers of The Journal may be interested in an earlier piece of press-agent work in behalf of "Mental and Spiritual Healing" that was sent out during the summer of 1923. This consisted of four typewritten pages, legal size, purporting to come from the Albany Chamber of Commerce. It dealt with the "most remarkable case in modern med-

ical science" that had recently happened "at the County Hospital at Albany." The story was to the effect that "Dr. J. T. Everheart," who was in charge of the County Hospital at Albany, had just announced that one Margaret Cooper who died in the hospital had been brought to life by a Mrs. Elizabeth Smith. Mrs. Smith's stunt in producing this resurrection was said to have been performed after reading Banning's book "Mental and Spiritual Healing"! The bringing back to life of Miss Cooper, we were told, had aroused Albany to a "mob fever of investigation" and all of the Protestant churches and some of the Catholic churches had organized groups to study these startling healing methods.

At the time this came out The Journal made some investigations. It found that, although the stuff was supposed to be sent out by the Albany Chamber of Commerce, it was mailed from Los Angeles. The Chamber of Commerce of Albany, N. Y., repudiated the report and expressed itself as much exercised over this "semi-malicious publicity matter" and stated that it was doing its utmost to run the story down. That organization also declared that it had received many letters from metropolitan and smaller newspapers, as well as from other Chambers of Commerce but that, fortunately, the thing had been discredited generally by the newspapers and no credence placed in it.

Incidentally, there was no "Dr. J. T. Everheart" in the United States, and The Journal learned that Banning was at that time operating under the fictitious trade style "National Statistical and Efficiency Bureau" and that he also claimed to be president of the "Sons of the American Revolution." It was also said that Banning had acted as an organizer for various societies and clubs as well as claiming to be an "efficiency expert."

From what has been said, one might expect a book on "Mental and Spiritual Healing" brought out under such auspices to be worthless or worse; it comes up to such expectations. Its physical make-up is crude;

it is printed on cheap paper with an inexpensive binding. If it had any worth-while sale it should bring in a handsome profit if sold at 50 cents. Instead, it sells for \$3.50. Considerably more than half the book is "lifted" bodily from various other publications—most of them as scientifically unsound as Banning's own stuff. The whole of Chapter II is taken from an earlier book of Banning's entitled "Psychology, Superpsychology and Higher Phases." In this chapter Banning declares in effect that we know nothing of matter except through "vibrations." Health, he tells us, is due to the "proper attunement of the many varieties and planes and keys of vibration that manifest themselves" in what he terms "the so-called human body." We are told further that "so-called sin, sickness or other abnormal conditions" are due to "inharmonious vibrations." Furthermore, "you can set in motion vibrations that will kill or nullify any harmful vibrations started by others." All through his book Banning glibly but vaguely drags in vibrations. For example:

"If food we eat has ceased to vibrate as to its molecular vibrations as digestible food and vibrates in a different way as food that is bad or decomposing, there is instantly a reaction in the stomach or intestines."

This sentence is characteristic of the amount of knowledge exhibited by Banning both in the use of the English language and in his conception of physiology.

The chapter dealing with "Spiritual and Divine Healing" consists of forty-two pages, about thirty-five of which consist of quotations from Mary Baker Eddy and other followers and imitators of Eddyism. Part of the chapter deals with the "Treatment for Prosperity" as practiced by one George E. Burnell. To quote a few of the Burnell postulates:

"All the power there is, is devoted to my prosperity; I am not afraid."

"There is no reality in the poverty of the poor; there are no poor."

"I know that there are no poor and oppressed; I do not doubt the truth."

"There is no truth in the idea of having to work for a living; life is."

From such investigations as have been made, The Journal does not hesitate to express the opinion that the so-called Benjamin Franklin Fund does not exist and that the alleged "major award" to Banning is as big a hoax as the resurrection stunt at the "Albany County Hospital."

MERCER UNIVERSITY INSTITUTE FOR WOMEN

June 16-28, 1924

Health Program

June 16th: Malaria Fever—How it spreads and its prevention.

June 17th: Typhoid Fever, Hookworm, and Tonsillitis, its effect on the heart, Arthritis, etc.

June 18th: Tuberculosis—How it spreads and its prevention.

June 19th: Cancer—Importance of early diagnosis and its prevention.

June 20th: Metabolic Diseases—Relation of foods to same, etc.

June 21st: Pre-Natal Care, etc.

Instructors

Dr. Theodore Toepel, M. D., Atlanta, Ga. Graduate of Medical Department of Emory University 1899; post graduate of Penn. University and Philadelphia Polyclinic; received training in Philadelphia, New York and Boston for specializing in bone and joint diseases; Chairman of Committee on Health and Public Instruction of Medical Association of Georgia.

Dr. Charles C. Harrold, Macon, Ga. B. S., A. M., M. D., F. A. C. S.; Macon Commissioner of Boy Scouts.

Dr. V. P. Sydenstricker, Augusta, Ga. Professor of Medicine, University of Georgia, A. M., M. D.; Captain Medical Corps, United States Army.

Dr. T. F. Abercrombie, Atlanta, Ga. B. S., M. D. B. S. Douglasville College; M. D. Emory University. Commissioner Health Glynn County. Secretary and Commissioner of

Health, four years. State Board of Health, six years.

Dr. E. C. Thrash, Atlanta, Ga. M. D., F. A. C. P. Ex-President of the Medical Association of Georgia; ex-President of Georgia Tuberculosis Association. Chairman of Board of Trustees Fulton County Medical Society; Professor of Pathology, Bacteriology and Diseases of the Chest in Colleges of Atlanta from 1905 to 1916.

Dr. Joseph Akerman, Augusta, Ga. A. B. University of Georgia, 1894; Tutor in Ancient Languages, University of Georgia, 1894-95; M. D. Johns Hopkins 1900; Interne Presbyterian Hospital, Philadelphia, 1900-02; Superintendent James Walker Memorial Hospital, Wilmington, N. C., 1906-16; Superintendent University Hospital, Augusta, Ga., 1916-17; Assistant Professor Obstetrics and Professor Obstetrics, Medical Department, University of Georgia, 1917-1924.

Dr. Edgar D. Shanks, M. A., Atlanta, Ga. Associate in Medicine, Emory University School of Medicine; Assistant Visiting Physician to Grady Hospital, Atlanta; Visiting Physician to Wesley Memorial Hospital, Atlanta; Assistant Visiting Physician to Georgia Baptist Hospital, Atlanta; Consulting Pathologist to U. S. Veterans Bureau, Atlanta.

June 18th is Public Health Day.

A Luncheon Conference will be had at 1:00 to 2:30 in the main dining hall of Mercer University. Mrs. G. P. Folks, of Waycross, Ga., will act as chairman of the luncheon conference and Dr. C. E. Waller, Atlanta, will act as conference leader.

June 27th, at 8:30 P. M., Dr. J. W. Daniel will speak on Health. He will be introduced by Dr. C. C. Harrold, of Macon, Ga.

June 23rd, Dr. Percy R. Howe, of Forsyth Dental Institute, will speak at 8:30 P. M. on Importance of Nutrition to Teeth. He is presented by the State Dental Association and will be introduced by Dr. H. H. Johnson. Dr. Howe is a Professor in Harvard University and Professor in Forsyth Dental Institute, Boston, Mass.

DIET OF THE FAMILY

Perhaps one of the most arduous duties of the housewife is the preparation of the three meals a day. Everything relating to the subject of nutrition and especially the food and nutrition of children has acquired a new interest in the last few years and much new knowledge has been added. Homemakers can not any longer afford to use the hit-and-miss method in feeding their families. The growth and development of children and to a certain extent their mental development depend largely upon diet. Food also adds largely to the health and happiness of the adult and to his contribution to society.

The course in nutrition at the Mercer Institute for Club Women has been planned to assist the homemaker in solving the problem, "What Shall We Have For Dinner?" The lectures will outline the food needs of the body and the part that the various foods play in supplying these needs. Food for children of all ages will be given especial emphasis. The economic aspect will also be stressed. Tables will be prepared showing the cost in relation to the food values of the various foods and the spending of the family income wisely will be given consideration. The lectures will be well illustrated by food exhibits, charts, posters and slides.

Outline of Nutrition Course

1. Nutrition, its relation to health, growth and progress in school.
2. Essentials of a safe diet—Energy needs of the body.
3. Essentials of a safe diet—Growth promoting properties of foods.
4. Essentials of a safe diet—Regulation of body processes. Protective and curative properties of foods.
5. Illustrated lecture showing the effect of the above on growth, good tooth formation and general health.
6. Planning the dietary so as to include the above factors.
7. Food for young children.
8. Utilization of milk in the diet—Demonstration of milk dishes.

9. Place of green vegetables in the diet—Demonstration of salads.

10. Relation of bread to health—Bread demonstration.

11. The housekeepers' helpers in providing a safe diet—Cow and hen.

12. The housekeepers' helpers in providing a safe diet—Home garden and orchard. Instructors:

Msis Susan Matthews, Athens, Ga. B. S. Columbia University; Nutrition Specialist, Extension Division of the Georgia State College of Agriculture.

Miss Frances Simpson, Athens, Ga. Nutrition Specialist, Extension Division, Georgia State College of Agriculture.

STATE BOARD OF MEDICAL EXAMINERS

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W. C. Williams, Jr., M. D., Cochran.

H. G. Maxey, M. D., Maxey.

B. T. Wise, M. D., Plains.

Georgia reciprocates with the states named below on the basis of a diploma only if the applicant had his diploma registered prior to December, 1894. After this date applicants who desire to get Georgia license through reciprocity are required to have stood State Board Examination. After April, 1914, applicants must not have graduated from class C colleges. Georgia does not require that applicants should have practiced one year or any other length of time in the State where they received their license before they will be eligible for reciprocity. Applicants for a certificate on the basis of reciprocity must make formal application on a blank provided by the State Board of Examiners. This blank

can be secured by writing to the Secretary of this Board. The fee for reciprocity is \$50.00. The fee for certifying to Georgia License of those leaving the state for reciprocity with another state is \$10.00. The State Board examinations are held in June of each year in Atlanta and Augusta and on the second Tuesday in October of each year in Atlanta in the Legislative Hall of the State Capitol.

States With Which Georgia Reciprocates

Alabama, Arkansas, Colorado, California, District of Columbia, Indiana, Iowa, Kentucky, Kansas, Louisiana, Maine, Maryland, Minnesota, Mississippi, Michigan, Missouri, Nebraska, New Hampshire, New Jersey, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington State, West Virginia.

DIRECTORS OF DIVISIONS, GEORGIA STATE BOARD OF HEALTH

Dr. T. F. Abercrombie, Commissioner of Health and Secretary, Atlanta.

Dr. Joe P. Bowdoin, Division of Venereal Disease Control, Atlanta.

Dr. W. A. Davis, Bureau of Vital Statistics, Atlanta.

Dr. Alice Moses, Assistant Director Division of Child Hygiene, Atlanta.

T. F. Sellers, Division of Laboratories, Atlanta.

H. C. Woodfall, Division of Sanitary Engineering and Water Analysis, Atlanta.

Dr. Edson W. Glidden, Superintendent State Tuberculosis Sanitarium, Alto.

Dr. George H. Preston, Superintendent Georgia Training School for Mental Defectives, Gracewood.

Dr. M. A. Fort, Director Malaria Control, Atlanta.

GEORGIA STATE BOARD OF HEALTH

Mr. Robert F. Maddox, President, Atlanta.

First District—Dr. John W. Daniel, Savannah.

Second District—Dr. A. D. Little, Thomasville.

Third District—Dr. F. D. Patterson, Cuthbert.

Fourth District—Dr. J. H. McDuffie, Vice-President, Columbus.

Fifth District—Mr. Robert F. Maddox, President, Atlanta.

Sixth District—Dr. Chas. H. Richardson, Jr., Macon.

Seventh District—Dr. A. C. Shamblin, Rome.

Eighth District—Dr. W. I. Hailey, Hartwell.

Ninth District—Dr. J. C. Verner, Commerce.

Tenth District—Dr. John A. Rhodes, Crawfordville.

Eleventh District—Dr. J. L. Walker, Waycross.

Twelfth District—Dr. M. S. Brown, Fort Valley.

Dr. N. H. Ballard, State Superintendent of Schools, Atlanta.

Dr. Peter F. Bahnsen, State Veterinarian, Atlanta.

Dr. T. F. Abercrombie, Secretary, Atlanta.

COMMISSIONERS OF HEALTH (Ellis Health Law)

Dr. H. D. Allen, Jr., Baldwin County, Milledgeville.

Dr. J. D. Applewhite, Clarke County, Athens.

Dr. R. W. Todd, Cobb County, Marietta.

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Dr. Howard E. Felton, Bartow County, Cartersville.

Lieut. T. E. Lockhart, Fulton County, Atlanta, Ga.

Dr. Hugo Robinson, Dougherty County, Albany.

Dr. B. V. Elmore, Floyd County, Rome.

Dr. R. L. DeSaussure, Glynn County, Brunswick.

Dr. B. D. Blackwelder, Hall County, Gainesville.

Dr. O. H. Creek, Laurens County, Dublin.

Dr. J. H. Hammond, Walker County, LaFayette, Ga.

Dr. G. T. Crozier, Lowndes County, Valdosta.

Dr. B. F. Bond, Sumter County, Americus.

Dr. H. L. Pearson, Thomas County, Thomasville.

Dr. C. S. Kinzer, Troup County, LaGrange.

Dr. H. L. Akridge, Mitchell County, Camilla, Ga.

UNIVERSITY OF GEORGIA ALUMNI REUNION WEEK

The Directors and Faculty of the Medical Department, University of Georgia request the honor of your presence at the First Annual Alumni Reunion and Clinic Week, June Second to Sixth, at the Medical College, Augusta, Georgia.

Monday, June 2, 1924

10—12 A. M. Registration; 12—1 P. M. To be selected; 1—3 P. M. Lunch; 3—4 P. M. Experimental Surgery, Dr. Ralph H. Chaney; 3—4 P. M. Pharmacology, Dr. William Salant; 4—5 P. M. Anatomy, Dr. Eliot R. Clark; 4—5 P. M. Public Health, Dr. H. B. Neagle; 8:30 P. M. Graduating Exercises.

Tuesday, June 3, 1924

10—11 A. M. X-Ray Demonstration, Dr. L. P. Holmes; 11—12 A. M. Pediatrics Clinic, Dr. N. M. Moore; 12—1 P. M. Medical Clinic, Dr. Eugene E. Murphey; 12—1 P. M. Orthopedics, Dr. H. M. Michel; 1—3 P. M. Lunch; 3—4 P. M. Pharmacology, Dr. William Salant; 3—4 P. M. Clinical Laboratory, Dr. V. P. Sydenstricker; 4—5 P. M. Chemistry, Dr. C. H. Maryott; 4—5 P. M. Public Health, Dr. H. B. Neagle; 8—10 P. M. To be selected.

Wednesday, June 4, 1924

10—11 A. M. To be selected; 10—12 A. M. Surgical Clinic; 11—12 A. M. Neurological Clinic, Dr. W. J. Cranston; 12—1 P. M.

Medical Clinic, Dr. Thomas D. Coleman; 12—1 P. M. Dermatological Clinic, Dr. G. T. Bernard; 1—3 P. M. Lunch; 3—4 P. M. Experimental Surgery, Dr. Ralph H. Chaney; 3—4 P. M. Clinical Laboratory, Dr. V. P. Sydenstricker; 4—5 P. M. Anatomy, Dr. Eliot R. Clark; 4—5 P. M. Chemistry, Dr. C. H. Maryott.

Thursday, June 5, 1924

10—11 A. M. To be selected; 10—12 A. M. Surgical Clinic; 11—12 A. M. Preventive Pediatrics Clinic, Dr. W. A. Mulherin; 12—1 P. M. Medical Ward Rounds; 12—1 P. M. Obstetrical Clinic, Dr. Joseph Akerman; 1—3 P. M. Lunch; 3 P. M. Pathology, Dr. R. V. Lamar; 5 P. M. Dr. John W. Daniel; Barbecue at Carmichaels.

THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

The American Society of Clinical Pathologists, to which the profession is looking for a demonstration of the actual value of well trained laboratory experts to the practice of clinical medicine, will hold its next meeting June 5—7, 1924, in Rochester, Minnesota.

The Society desires the co-operation of the rest of the medical profession, and especially those physicians, surgeons, and laboratory experts who either do some clinical laboratory work or are responsible for such work in conjunction with their professional activities. An exceedingly practical program of papers and demonstrations is being arranged.

THE CHICAGO SESSION

Railroad Rates From the Pacific Coast to Chicago

Physicians who expect to attend the seventy-fifth annual session of the American Medical Association, to be held in Chicago, June 9-13, should make careful inquiry at railroad ticket offices, before purchasing tickets, as to whether or not summer excursion rates are in effect. The summer excursion rates from the Far West have, for several years, been lower than the rate that has been specifically granted for the coming Chicago session, and it is understood that it will be lower this year. Summer excursion tickets, it is said, will permit stopovers to be made on the going, as well as on the return trip. Definite information concerning this can be secured from railroad agents.

All who purchase tickets sold specifically for the Chicago session from points other than those located in the Far West must secure return certificates at the time tickets are purchased in order to get the advantage of the rate of one and one-half fare.

Hotel Reservations

While one or two of Chicago's large centrally located hotels have announced that their entire capacity has been reserved for the week of the coming session, it nevertheless seems that physicians who intend to be present have been somewhat slow to reserve hotel accommodations. This is unfortunate, because Chicago has regularly a very large hotel population and it is not safe to defer making reservations. Dr. Frank Morton, Room 1522, 25 East Washington Street, Chicago, is chairman of the Committee on Hotels, and will take pleasure in helping members and Fellows to secure comfortable accommodations.

Members of the House of Delegates who have not secured reservations should write at once to the Drake Hotel for such accommodations as they desire. Tentative reservations have been made at the Drake for all members of the House of Delegates, but they must advise the hotel as to just what they want and make the final reservations. It will be necessary to release rooms that have been tentatively reserved, but not called for by delegates, within a reasonable time before June 9.—*Jour. A.M.A.*, March 29, 1924.

NEWS ITEMS

Dr. Harry N. Kraft announces the removal of his offices to 502-503 Candler Building, Atlanta. Dr. Kraft will limit his work to internal medicine and x-ray diagnosis.

The Randolph County Medical Society held a public meeting May 1, 1924, in the Court House. Malaria was the subject discussed. Dr. S. T. Darling, of the Rockefeller Foundation, and Dr. M. A. Fort, State Director Malaria Control, were among the interesting speakers.

The annual meeting of the Second District Medical Society was held at Thomasville, May 15th. There were about one hundred and fifty members attending from the District. Among the visiting physicians appearing on the program were Dr. Jonn W. Daniel, of Savannah, President of the Association, Dr. Hal Davidson, of Atlanta, and Dr. F. A. Sprague, of Macon.

The Seventh District Medical Society was held April 2, 1923, at Dalton, with seventy physicians attending. It was voted that the next meeting is to be held at Rome in September. The following officers were elected:

President—Dr. R. E. Wilson, Cartersville.

Vice-President—Dr Trammel Starr, Dalton.

Secretary—Dr. M. M. McCord, Rome.

The February meeting of the Waycross Health League was held in the Chamber of Commerce, at Waycross, and was open to the public. The special feature of the meeting was a plain and practical talk on cancer by Dr. W. M. Lott, of Waycross, after which he answered any questions which the ladies had to ask bearing on this subject.

Dr. George Y. Massenburg, of Macon, made the opening talk of a city wide health campaign on February 19th on Cancer and Cancer Control.

The will of Mrs. J. P. Williams, President of the Georgia, Florida and Alabama Railroad, provided that a Memorial Hospital to care exclusively for women and children be established in some Georgia County. The Hospital will be called the "Jessie Parker Williams Memorial Hospital" in memory of her late husband.

The Fulton County Medical Society is having articles of interest to the layman published in the local newspapers once a week. The first of the series of articles was "Treatment and Control of Diabetes" which was followed by "How Apparently Healthy People Spread Disease". These articles are written in such simple language that they are thoroughly understood by the public.

Mr. and Mrs. William Mizell announce the marriage of their daughter Susie to Doctor Albert Fleming on Wednesday, April the thirtieth, nineteen hundred and twenty-four, at Folkston, Georgia.

COUNTY SOCIETY REPORTS

Crisp County Medical Society

The Crisp County Medical Society announces the following officers for 1924:

President—L. E. Williams, Cordele.

Vice-President—M. R. Smith, Cordele.

Secretary-Treasurer — Byron Daniel, Cordele.

Delegates—J. A. Ward and Ford Ware.

Jackson County Medical Society

The Jackson County Medical Society announces the following officers for the year 1924:

President—F. M. Hubbard, Commerce.

Vice-President—S. J. Smith, Jefferson.

Secretary-Treasurer—J. C. Bennett, Jefferson.

Delegate—M. B. Allen, Hoschton.

Jones County Medical Society

The Jones County Medical Society announces the following officers for 1924:

President—J. H. Riley, Haddock.

Vice-President—B. L. White, Round Oak.

Secretary-Treasurer—P. R. Chambliss, Gray.

Blue Ridge County Medical Society

The Blue Ridge County Medical Society announces the following officers for the year 1924:

President—J. M. Daves, Blue Ridge.

Vice-President—C. C. Russell, Mineral Bluff.

Secretary-Treasurer—C. B. Crawford, Blue Ridge.

Delegates—J. S. Tankersley and C. B. Crawford.

Emanuel County Medical Society

The Emanuel County Medical Society announces the following officers for the year 1924:

President—D. D. Smith, Swainsboro.

Vice-President—W. H. Lucas, Stillmore.

Secretary-Treasurer—S. S. Youmans, Oak Park.

Delegates—E. T. Coleman and J. H. Chandler.

Bulloch-Candler Medical Society

The Bulloch-Candler Medical Society announces the following officers for the year 1924:

President—W. E. Simmons, Metter.

Vice-President—A. Temple.

Secretary-Treasurer—F. F. Floyd, Statesboro.

Delegates—F. F. Floyd and W. D. Kennedy.

Tift County Medical Society

The Tift County Medical Society announces the following officers for the year 1924:

President—W. H. Hendricks, Tifton.

Vice-President—George W. Julian, Tifton.

Secretary-Treasurer—M. P. Sporman, Tifton.

Delegate—L. A. Baker, Tifton.

Terrell County Medical Society

The Terrell County Medical Society announces the following officers for the year 1924:

President—J. G. Dean, Dawson.

Vice-President—R. R. Holt, Parrott.

Secretary-Treasurer—Steve P. Kenyon, Dawson.

Delegate—J. G. Dean, Dawson.

Coffee County Medical Society

The Coffee County Medical Society announces the following officers for the year 1924:

President—J. R. Smith, Douglas.

Vice-President—D. H. Meeks, Nicholls.

Secretary-Treasurer—T. H. Clark, Douglas.

Delegate—T. H. Clark, Douglas.

Pike County Medical Society

The Pike County Medical Society announces the following officers for the year 1924:

President—J. C. Beauchamp, Williamson.

Vice-President—D. L. Head, Zebulon.

Secretary-Treasurer—M. M. Head, Zebulon.

Delegates—M. M. Head and D. L. Head.

Stephens County Medical Society

The Stephens County Medical Society announces the following officers for the year 1924:

President—John H. Terrell, Toccoa.

Vice-President—W. R. King, Toccoa.

Secretary-Treasurer—C. L. Ayers, Toccoa.

Delegates—W. M. Fresh and Jeff Davis.

Troup County Medical Society

The Troup County Medical Society announces the following officers for the year 1924:

President—D. E. Morgan, LaGrange.

Vice-President—R. M. Avery, Hogansville.

Secretary-Treasurer — H. H. Hammett, LaGrange.

Delegates—W. P. Phillips and R. S. O'Neal.

Washington County Medical Society

The Washington County Medical Society announces the following officers for the year 1924:

President—J. R. Burdette, Tennille.

Vice-President—T. E. Vickers, Wrightsville.

Secretary-Treasurer—N. Overby, Sandersville.

Delegates—D. E. McMaster and S. B. Malone.

Hall County Medical Society

The Hall County Medical Society announces the following officers for the year 1924:

President—Bradley B. Davis, Gainesville.

Vice-President—R. L. Rogers, Gainesville.

Secretary-Treasurer—Pratt Cheek, Gainesville.

Delegate—J. H. Downey, Gainesville.

PHILADELPHIA ACADEMY OF SURGERY

The Samuel D. Gross Prize Fifteen Hundred Dollars

Essays will be received in competition for the prize until January 1, 1925.

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative

of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1925.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M. D.,

JOHN H. JOPSON, M. D.,

EDWARD B. HODGE, M. D.,

Trustees.

Philadelphia, March 15, 1924.

RESOLUTIONS BY YOUNG MEN'S CLUB OF BRUNSWICK

Whereas there has been brought to the attention of the Young Men's Club, of Brunswick, Ga., the deplorable state of affairs evidenced by the health record of the State of Georgia as compared with those of her sister states, due to the prevalence of

preventable diseases and the lack of sufficient facilities and personnel for properly combating and eradicating them;

Whereas, this record, and these conditions, we believe to be basic reasons for the comparatively slow development of the state and utilization of its natural resources; and various health authorities of the State Wide Health Association of business and professional men to assist the physicians and various health authorities of the State in bettering Georgia's standing in these respects;

Therefore, be it resolved by the Young Men's Club of Brunswick, Ga., in regular meeting assembled: That we heartily endorse the purposes of the State-Wide Health Association, and unanimously agree to the objective championed by it, and pledge the membership of this Club to a hearty moral support in the work it is undertaking to lift Georgia to the high place in health matters which rightfully should be hers.

Respectfully submitted,

J. W. SIMMONS.

The above resolution, duly seconded by R. L. Philips and B. F. Mann, was unanimously passed by the Young Men's Club, of Brunswick, Ga., in regular meeting assembled, March 21, 1924.

(Signed) A. MYDDLETON HARRIS,

Secretary.

GUARDIANSHIP OFFICERS FOR U. S. VETERAN BUREAU

The organization of a new division in the U. S. Veterans Bureau to handle all matters pertaining to guardianship has been authorized, it was announced today by General Frank T. Hines, Director of the Bureau.

The new division will function under the Control Service which is headed by Major Davis G. Arnold, Assistant Director.

In addition to the personnel in the Central Office, there will be named in each district and sub-district office, where warranted, an

employee to be known as Guardian Officer, who will exercise control over the faithful enforcement of the laws of the United States and the several states having jurisdiction and regulations of the Veterans Bureau relating to guardianship matters. These Guardianship Officers are to be named by the District Managers, who will in most cases designate an attorney who has had experience in Probate Court practice.

The work of the Guardianship Division will largely deal with the problems of the Bureau beneficiaries who have been rated as mentally incompetent to handle their own affairs as far as they pertain to the Veterans Bureau.

TAXATION

To the Editor:

The House of Representatives, in passing the Revenue Act of 1924, has continued the excess war tax under the Harrison Narcotic Act. It has not provided for the deduction of traveling expenses incident to attending meetings of medical organizations nor the expenses of postgraduate study, in computing physicians' income taxes. The Senate is now considering the Act as it came from the House and can initiate action looking toward relief. To induce the Senate to initiate such action, the medical profession should show that the taxation of which the physician complains is a hindrance to the science and art of medicine and is in last analysis taxation of the sick and the injured, and that the excess war tax under the Harrison Narcotic Act is, as a peacetime occupational tax, an unjust burden on the medical profession.

Special emphasis should be laid on the facts (1) that the Harrison Narcotic Act is a police measure, enacted for the common good; (2) that the taxes imposed by it were levied when the Act was passed, solely to give it constitutionality; (3) that the persons taxed under the law derive no special benefit from it but on the contrary are put to great trouble in the keeping of records and making reports; and (4) that there is neither logic nor justice in imposing on the taxpayers under that act the entire cost of

policing the entire country against the narcotic evil. These facts should be particularly stressed, because the Treasury Department, in seeking an increase of a half-million dollars in the appropriation for the enforcement of the Act, has insinuated into its argument the hypothesis that there is a logical relation between the revenues derived from this Act and the cost of enforcing it, apparently ignoring the fact that whatever the Act may be in legal fiction, merely a police measure masquerading under the guise of a revenue law.

Please let both senators from your state learn at once the views of the medical profession with respect to the situation. It is of particular importance that urgent representations be made to those senators who are members of the Finance Committee, namely:

Reed Smoot, of Utah; Robert M. LaFollette, of Wisconsin; George P. McLean, of Connecticut; Charles Curtis, of Kansas; James E. Watson, of Indiana; David A. Reed, of Pennsylvania; Davis Elkins, of West Virginia; Pat Harrison, of Mississippi; Robert Nelson Stanfield, of Oregon; Furnifold M. Simmons, of North Carolina; Andrieus A. Jones, of New Mexico; Medill McCormick, of Illinois; Richard P. Ernst, of Kentucky; Peter G. Gerry, of Rhode Island; James A. Reed, of Missouri; David I. Walsh, of Massachusetts; William H. King, of Utah.

Yours truly,

Wm. WOODWARD, Secretary.

Bureau of Legal Medicine and Legislation,
A. M. A.

Chicago, March 24, 1924.

OBITUARY

Dr. W. W. Tison, of Cedartown, died March 23, 1924, at a hospital in Rome after a short illness. Dr. Tison was 52 years old.

In the April issue of the Journal appeared an announcement of the death of Dr. Augusta Moody. This should have been Dr. Augusta Moody Burt.

For Sale

A nice drug store and home in the peach sections of Georgia. Practice established for 15 years. The place for a man meaning business. Reason—leaving State. Do not answer unless you mean business.

Address No. 75,
Journal Medical Association of Ga.
65 Forrest Ave., Atlanta, Ga.

Wanted

Location in Georgia: Have just completed a six months Post-Graduate course at Tulane. Was formerly located in Georgia. Would like opening in Georgia, either contract or otherwise.

Address "Location Wanted"
Journal Medical Association of Ga.

THE PROPAGANDA FOR REFORM

In This Department Appear Reports of the Journal's Bureau of Investigation, of the Council of Pharmacy and Chemistry and of the Association Laboratory, Together With Other General Material of an Informative Nature.

The Resistance of Malaria to Quinin.—In 1917 reports began to appear that English soldiers in the tropics were being attacked by malaria that quinin would not cure. A report was published that quinin was ineffective in cases that were complicated by dysentery. An extensive study has demonstrated that quinin will cure malaria and that dysentery does not prevent the cure. In these cases the physician administered the quinin by mouth and made sure that it was swallowed. A study of the intramuscular injection of quinin demonstrated that necrosis of the muscle always occurred and that the absorption was less satisfactory than when the drug is given by mouth. It was shown that there was a profound fall in blood pressure when quinin is introduced intravenously, and one case of death and one case of serious

sepsis are reported. It was also found that quinin is too irritating to be administered by rectum. (Journal A.M.A., April 5, 1924, p. 1125.)

Antipneumococcic Serum Types I, II and III, and Polyvalent.—The New and Nonofficial Remedies' description of antipneumococcus serum stated that thus far only the Type I serum seemed to be on reasonably secure clinical ground. In consideration of favorable reports on the use an antipneumococcic serum which, in addition to the Type I organism, also represented Types II and III and Group IV, the Council of Pharmacy and Chemistry accepted such "polyvalent" serums. At its 1921 annual meeting, the Council considered the available evidence for the use of antipneumococcus serum. The conclusion was reached that there was a preponderance of evidence against the employment of a serum which represented organisms other than Type I. Accordingly, the Council has omitted from New and Nonofficial Remedies all antipneumococcic serums which represented organisms other than Type I. (Journal A.M.A., April 5, 1924, p. 1138.)

The Pharmacology of Carbon Tetrachlorid.

—The most recent claimant for recognition as a means of removing hookworms is carbon tetrachlorid. The moderate cost of this chemical has enhanced its popularity. As the product appears in commerce in a variety of forms for use for different purposes, the A.M.A. Chemical Laboratory studied the quality of the market supply and elaborated standards that might serve to identify products suitable for medicinal purposes. As a result of this study, the Council on Pharmacy and Chemistry adopted standards for carbon tetrachlorid medicinal and listed the brands that complied with these standards. The remedy is comparatively safe, though serious symptoms and even death have been reported from its use, especially in patients addicted to the use of alcohol. Pharmacologic investigation has shown that the substance is relatively nontoxic because it is not readily absorbed from the intestinal canal.

Severe intoxication results if the drug is introduced into the tissues directly through the circulation, as by inhalation, or if its absorption is favored by the presence of fats or of alcohol in the stomach and intestines. Hence, alcohol and fats—even milk, perhaps—are to be avoided when carbon tetrachlorid is administered. (Journal A.M.A., April 19, 1924, p. 1268.)

Parathyroid Gland Therapy.—The administration of parathyroid gland has been reported of value in the treatment of a number of cases of tetany following the operative removal, or the injury of the parathyroid gland. It has prevented the attacks of tetany and of infantile tetany and seemed at times to have prolonged life, or to have saved it, while the injured glands regained their functions. It has been stated to be of value in some cases of gastric tetany, although in other cases the results were negative. Parathyroid gland has been used by some one or another at some time (and claimed to be of value) for conditions such as varicose ulcers, gastric, duodenal and cervical ulcers, tuberculosis, sinus of the hip, paralysis agitans, eclampsia, etc., but that such disorders are regularly and favorably affected by parathyroid gland administration is a conclusion unsupported by controlled clinical evidence. (Journal A.M.A., April 19, 1924, p. 1286.)

Tolysin Omitted from N. N. R.—Tolysin is the proprietary name under which the Calco Chemical Company markets its brand of neocinchophen. The Council on Pharmacy and Chemistry agreed to recognize this proprietary name, first, because the Calco Chemical Company promised to use novatophan (under which name the drug was introduced) or neocinchophen (the New and Nonofficial Remedies' name) as a synonym, thus avoiding, in a measure, confusion concerning the identity of the substance on the part of physicians, and, second, because at that time the firm was the only manufacturer of neocinchophen in the United States. Before Tolysin was accepted the Council required the discontinuance of the claim that the drug is free from

cardiac depressant and renal-irritant action, except when limited amounts are used. Despite this requirement, advertising recently issued for Tolysin implies that it is free from toxicity. Further, the Calco Chemical Company determined to break its agreement to use neocinchophen or novatophan as a synonym. The Council has omitted Tolysin from New and Nonofficial Remedies because (1) it is marketed with unwarranted therapeutic claims, and (2) by the omission of the established synonym, neocinchophen (of novatophan), the physician is likely not to appreciate the character of the drug and its relation to cinchophen. (Journal A.M.A., April 26, 1924, p. 1381.)

Citrophan.—This is a “fat cure” exploited to the medical profession and the public by the Gotham Corporation, New York City. The only statement bearing on the identity of Citrophan which is made is the claim that it is “a new organic iodine compound.” The claims made for Citrophan are many and various, back of all of them is the fundamental thesis: “Science has found that the chief cause of obesity lies in the development of alcohol in the digestive tract brought about by the action of yeast bacteria—taken into the stomach in improperly baked bread—and on raw fruits and vegetables.” This claim is unsupported by scientific work. The A. M. A. Chemical Laboratory reports that Citrophan is sold in the form of tablets ranging in weight from about $4\frac{1}{2}$ grains to more than 7 grains. Analysis indicated that the chief medicinal ingredients was tetraiodophenolphthalein. Sugar of milk, starch, vegetable tissue and traces of an acid insoluble substance (probably talc) were found; also two per cent of an unidentified organic substance. Quantitative determinations showed the composition of Citrophan to be: tetraiodophenolphthalein 40 per cent, sugar of milk 52 per cent, ash (including talc), 3 per cent, starch and undetermined 5 per cent. About twenty-five years ago, tetraiodophenolphthalein, the

chief medicinal ingredient of Citrophan was exploited under the name “Nosophen” as an external and internal antiseptic. It has never attracted much attention in this country. Fangarine is sold (in the form of tablets) along with Citrophan. These the A. M. A. Chemical Laboratory found to contain phenolphthalein as its medicinal ingredient. It is evident that Citrophan is not a new discovery as claimed, and there is no evidence that Citrophan will reduce weight, except perhaps by disturbing the digestive functions. (Jour. A. M. A., March 1, 1924, p. 734.)

Sodium Morrhuate in Tuberculosis.—Sodium morrhuate is the sodium compound (soap) of the fatty acids obtained from cod liver oil. Its use in tuberculosis has been advocated, but like other preparations proposed for the treatment of this disease, it has not been shown to have value. The reported trials make its lack of value probable. Sodium morrhuate has not been admitted to New and Nonofficial Remedies. (Jour. A. M. A., 1924, p. 813.)

The Rectal Administration of Arsphenamin.—The intravenous administration of arsphenamin requires some skill, especially in children and in the obese in whom the veins are not readily accessible. Attempts have been made, therefore, to develop other methods of securing the effects of the drug. Among these, rectal administration has found most advocates. Manufacturers, ever seeking novelties have used favorable reports to market suppositories of arsphenamin. In 1920, the Council on Pharmacy and Chemistry published a report on supsalves stating that the evidence for the rectal administration of arsphenamin was distinctly unfavorable. At present the medical profession is being circularized by the Swan-Myer Company in an endeavor to popularize the rectal administration of arsphenamin in the form of suppositories sold as arsphenoids. It is opportune, therefore, that Littman and Hutton, at the request of the Therapeutic Research Committee of the Council on

Pharmacy and Chemistry, present a critical review of the literature and the result of clinical trials of the rectal use of arspenamin. Since most advocates of the rectal administration of arspenamin stress its importance in the case of infants, the investigators carried out their study with children with active symptoms of congenital syphilis. They used arspenamin given by enteroclysis and also the supsaves suppositories. The authors conclude that the clinical results were too feeble as compared with the intravenous or intramuscular method to warrant favorable consideration of the rectal administration. The investigators hold, moreover, that neoarsphenamin and sulpharsphenamin are now generally used by the intramuscular route in the treatment of syphilis in infants with results that are above reproach. (Jour. A. M. A., March 15, 1924, p. 888.)

Fat-Free Tincture of Digitalis.—Roth found that fat free tinctures of digitalis had no advantages over the U. S. P. tincture of digitalis. On the contrary, he found some of these fat free tinctures were so unstable that he advised manufacturers not to market them without stating the date of their manufacture on the label. "Fat free" tincture of digitalis was introduced under the belief that the fat from the leaf produced gastric disturbances; but Hatcher and Eggleston fed the fat to cats and found that it had no emetic action whatever. After an investigation of the subject, the Council on Pharmacy and Chemistry concluded that there is no essential difference in action between "fat free" tinctures of digitalis and the product official in the U. S. Pharmacopeia. (Jour. A. M. A., March 16, 1924, p. 911.)

Digifolin.—The claim is made for Digifolin that it keeps indefinitely. The available scientific evidence indicates that all digitalis preparations deteriorate with age. (Jour. A. M. A., March 15, 1924, p. 911.)

Allonal-Roche.—Allonal (The Hoffmann-La Roche Chemical Works, New York), is "Allylisopropylbarbituric acid-Phenyl-dime-

thyl dimethylamino pyrazolon." In the literature first sent out, it was stated to be a "compound" made by "chemically uniting allyl-isopropylbarbituric acid (37.5 per cent) with phenyl di-methyl-dimethylamino-pyrazolon (52.5 per cent) amidopyrin, i. e., in molecular proportions 1:2." Examination of Allonal tablets made in the A. M. A. Chemical Laboratory last year showed that, in water, the substance behaved as a mixture of allyl-isopropyl barbituric acid and amidopyrin and not as a compound. Furthermore, the percentages of the ingredients given were not in accord with the statement that they were in molecular proportions. The published reports on its use are favorable, but they apparently include no observations with controls. The evidence thus far available does not seem to prove (1) that "Allonal" possesses advantage over a mixture of allyl-isopropyl barbituric acid and amidopyrin, or even over one or other of its ingredients alone; (2) that the administration of allyl-isopropyl barbituric acid and amidopyrin in fixed proportion is desirable. The product has not been accepted for New and Nonofficial Remedies. (Journal A. M. A. March 29, p. 1066.)

NATIONAL HEALTH SERIES

To the Editor:

As promised in our previous letter, we are sending to you for review the first five volumes of the National Health Series:

CANCER: Nature, Diagnosis, and Cure. By Francis Carter Wood, M. D.; Director, Institute for Cancer Research, Columbia University.

MAN AND THE MICROBE: How Communicable Diseases are Controlled. By C. E. A. Winslow, Dr. P. H.; Professor of Public Health, Yale School of Medicine.

COMMUNITY HEALTH: How to Obtain and Preserve It. By D. B. Armstrong, M. D.; Sc. D.; Executive Officer of the National Health Council.

THE BABY'S HEALTH. By Richard A. Bolt, M. D., Gr. P. H.; Director, Medical Service, American Child Health Association.

PERSONAL HYGIENE: The Rules for Right Living. By Allan J. McLaughlin, M. D.; Surgeon United States Public Health Service.

These comprise the initial unit of five volumes of the 20-volume National Health Series, edited by the National Health Council, written by the leading health authorities of the country, and published by the Funk & Wagnalls Company. The other 15 volumes (see enclosed list) will be published in units of five titles, the series to be completed by May 1, 1924. As these units are ready, we shall be glad to send them to you for review.

Each of the five present volumes covers a subject of vital importance to the general public. To our knowledge, no books of a similar nature have ever appeared that have made the nature of the diseases, their prevention, under their cure so clear to the layman.

Every seeker for health, either for himself or for others, will be able to secure authoritative information in the National Health Series which he may follow in fullest confidence. The language is non-technical and easily understood. The volumes are compactly written, though at no sacrifice to clearness—a point of great desirability to the average person who does not care to take the time and trouble to read perhaps hundreds of pages of non-essential details or who will not bother trying to understand technical treatises.

Very truly yours,

FUNK & WAGNALLS COMPANY.

NATIONAL HEALTH SERIES. 16mo, full flexible Fabrikoid. Average number of words per volume, 18,000. Price per volume, 30 cents. Complete set of 20 volumes (ready about May 1, 1924) \$6.00.

THE GALL BLADDER: ITS PAST, PRESENT AND FUTURE

The Mutter Lecture of the College of Physicians, Philadelphia, December 7, 1923

By **J. E. Sweet, A. M. M. D., SC. D.**
Professor of Surgical Research, University of Pennsylvania, Philadelphia.

In this important publication Dr. J. E. Sweet, Professor of Research Surgery, after years of investigation, totally revolutionizes our present views of the function of the gall-bladder from various angles, bearing in mind the possible bearing of the known facts of embryology, anatomy and physiology upon the problem of the function of the gall-bladder.

Under the **past** of the gall-bladder Dr. Sweet reviews our knowledge of its embryology, and points out as the most striking result of this mode of study of the gall-bladder, the fact that the gall-bladder arises as an independent unit from that group of ancestral cells at the lower end of the fore-gut, which gives birth to such important structure from the standpoint of absorption and of secretory function, as the stomach and the duodenum, the liver and the pancreas. The relation of the embryology to the occurrence of accessory ducts is also pointed out.

Under the **present** of the gall-bladder, the author discusses the structure and anatomical relations of the organ, and the bearing of these facts upon its possible function. The nature of the muscular coat of the organ is shown to be that of a *muscularis mucosae*, having no function in emptying the organ. The position of the gall-bladder at the lowest point of the duct system and the provision of two-valve structures at its inlet, point toward an ease of filling and a difficulty of emptying. The unusual blood and lymph supplies of the gall-bladder are also discussed.

Sweet also calls attention to the peculiar pouchings of the mucous membranes of the duct-system, called parietal sacculi, which were known to the older anatomists, but which seem to be entirely unknown to the

present generation. These are very definite structures, which can be demonstrated by injecting the duct-system. They do not seem to be glandular, but have the same structure as the gall-bladder. The author inclines to agree with the old anatomist, Beale, that we must look upon these structures as accessory gall-bladders. The author offers some experimental indication that these structures hypertrophy after cholecystectomy.

Under the **future** of the gall-bladder, the author does not attempt the analysis of the various theories that have been offered. He assumes that the careful study of the embryology and anatomy points to the conclusion that the organ is designed for absorption. He discusses the relation of the gall-bladder to metabolism, a theory proposed by Virchow many years ago. Experiments on the relation of the gall-bladder to cholesterol-metabolism are presented, which show conclusively that some relationship does exist between the gall-bladder and this substance. Experiments are also cited which tend to show that the parietal sacculi undergo hypertrophy after the removal of the gall-bladder.

The author's conclusions are summed up in the following paragraph:

"The manner of origin and development of the duct system of the liver indicates, I believe, that the membrane lining this system may be possessed of powers of absorption; the complex structure of the gall-bladder, the rich blood supply, the unusual lymphatic supply, point to an absorptive function. The position of the gall-bladder, the provision of two valvular structures at its outlet, which are manifestly designed to permit inflow and to hinder outflow, lead me to the conclusion that under normal conditions whatever passes into the gall-bladder through the cystic duct, never passes out again through the cystic duct." The bile contained in the gall-bladder is evidently absorbed, and in this process of absorption it would seem that the cholesterol esters of the blood are influenced.

(Reprinted from the March, 1924, *International Clinics*.)

USEFUL BOOKS FOR THE BUSY PRACTITIONER

The Examination of Patients, by Nellis B. Foster, published by W. B. Saunders Company. In this excellent little book Foster has sounded a note of warning against placing too great a burden on the mechanical aids to diagnosis. Most of the facts upon which accuracy in diagnosis depends can be elicited by the use of the senses when these have been properly trained. All other methods furnish only corroborative evidence. The careful methodical and painstaking clinical observer is in a better position to learn the fundamentals.

Foster has condensed into a small volume the practical points from many large textbooks and at the same time has presented his subject in an attractive and readable style. The theory of diagnosis, the assembling of data, the physical examination, system examination, neurological examination, examination of ear and throat, examination of joints and extremities, immunological tests—these are some of his subdivisions of the subject. The Chapter on Diseases of the Cardio-Vascular System is especially instructive. We recognize the importance of this subject when we recall that diseases of the heart and vessels form the leading cause of death in this country. Foster states the chief cause of diagnostic errors "lies in two fundamental misconceptions (1) that a cardiac murmur always indicates heart disease, (2) that a heart is necessarily sound when no murmur is heard." . . . "A murmur is not a pathognomonic sign. Very seldom, if ever, can a diagnosis rest on this sign alone. The effects of cardiac disease may appear only in symptoms as in some cases of angina pectoris; or in the character of the rhythm alone in early myocardial degeneration; or in signs suggestive of adherent pericardium supported by an etiological factor for pericarditis (e. g. rheumatic fever)". The character of the pulse and the size of the heart together with the clinical condition of the patient are much more important than a consideration of murmurs alone.

Foster's book is worth while even for the busiest practitioner.

A Primer for Diabetic Patients, by Wilder-Foley-Ellithorpe, Second edition, published by W. B. Saunders Company.

To Dr. Elliott P. Joslin, of Boston, goes the credit of being the pioneer in advocating the education of the patient as the key to the successful treatment of diabetes mellitus. His "Diabetic Manual" remains the best general book for the intelligent patient. This being true we scarcely thought there was necessity for another book on the same subject for the **busy practitioner**. However, the experience of ourselves and patients has proved the contrary. The PRIMER is clear, compact and practical. The sample menus grouped according to the carbohydrate tolerance of the patient is most helpful—both to the patient and to the physician who is just learning to treat this most interesting disease. The utilization of the high fat diet is in accordance with the latest views on this subject. We have no hesitancy in saying that this should be the first book to be placed in the hands of the diabetic patient. Education is all important, but too many and too difficult texts defeat the object. Begin with something simple and easy to understand. Begin with *A Primer for Diabetic Patients*.

The Writing of Medical Papers, by Melish, published by W. B. Saunders Company.

"When my son graduates in medicine I expect to give him a copy of this book and ask him to be as faithful to it as my friend, Dr. M. A. Clark, is to the Constitution and By-Laws of our Association". Thus spoke one of our wisest and most beloved members. No higher endorsement could be given this book in Georgia, for next to his Bible Dr. Clark is faithful to the Constitution and By-Laws, greatly to his credit and to the Association which he honors by serving so faithfully.

A few dos and don'ts selected from the text illustrate the value of this handbook to writers both old and young.

1. Don't always go back to the Garden of Eden and review the literature to date.
2. Choose a subject, (1) of which original study has been made, and (2) on which further investigations may be made.
3. Make papers brief and clear.
4. Select a title which may be correctly classified in general indexes.
5. Do not write unless you have something original of instructive to contribute.
6. Do not submit manuscript for publication until it has been made as perfect as possible.

MAN AND THE MICROBE

The National Health Council has added another excellent little brochure to its Health Series. The latest is full of meat in the way of information that the public can grasp. The subject matter is divided into five sections: (1) Parasites and Parasitism; (2) Municipal Sanitation; (3) Insects and Disease; (4) Contact-Born Diseases; (5) Artificial Control of Immunity.

Truths pertaining to communicable diseases are presented in a clear-cut, understandable way. The duty of everyone interested in public health should be to get as many of these little booklets in the hands of the public as is possible. The National Health Council has issued about twenty-five essays for the purpose of educating people in the maintenance of good health for themselves and instructing them in extending aid toward obtaining standards in public welfare. The latest number of the National Health Series, the title of which is, "MAN AND THE MICROBE", is written by Dr. Charles Edward Amory Winslow, professor of PUBLIC HEALTH, Yale School of Medicine. It is unfortunate that the National Health Council is not in a position to put this valuable matter in more conspicuous volumes. Such valuable publications should be in large print and should have an attractive magnetic outward appearance and they

should be a part of every public and private library.

We congratulate the Council in its excellent work in opening up this new field in the dissemination of welfare information to the public.

E. C. Thrash.

COMMUNITY HEALTH

A very timely little book. It is full of information, written in a concise manner, just the thing for the busy practitioner who is interested in community health.

The chapter on community health organization deserves special mention, because it contains the information necessary to successfully organize county health work, getting the physicians, dentists and private health agencies, such as the Red Cross, the Antituberculosis association and the lay bodies into a county unit.

The references to the education of the health worker, the school children, the mother, the industrial worker are of special interest.

The other chapters, prevention of infectious diseases and non-infectious diseases, the cure of diseases and the preservation and improvement of health are very meritorious.

This little volume is published by Funk and Wagnalls Co., New York City and costs thirty cents net.

Toepel.

THE NATIONAL HEALTH SERIES

Twenty Health Books Edited by the National Health Council

In order to make available to the general public at moderate prices authoritative books on all phases of human health, the National Health Council has arranged with the Funk & Wagnalls Company for the publication of The National Health Series. It will contain twenty books of about 18,000 words each, written by the leading health authorities of the country. These books, bound in flexible fabrikoid, sell for 30 cents each or \$6.00 for

the series of twenty. The first ten volumes, consisting of those marked with a star (*), being ready by March 10th, 1924, and the balance will be issued during April and early May.

Titles, authors, and brief descriptions of each book are as follows:

*Man and the Microbe; How Communicable Diseases are Controlled. By C. E. A. Winslow, Dr. P. H.; Professor of Public Health, Yale School of Medicine.

A description of germs and germ diseases and how they are spread, together with practical methods of disease prevention by means of sanitation.

*The Baby's Health. By Richard A. Bolt, M.D., Gr. P. H.; Director, Medical Service, American Child Health Association.

How to care for the baby so that it will be healthy, will develop properly, and be strong and free from disease.

*Personal Hygiene; The Rules for Right Living. By Allan J. McLaughlin, M.D.; Surgeon United States Public Health Service.

Practical suggestions as to how to apply personal hygiene to promote health and get the most out of life.

*Community Health; How to Obtain and Preserve It. By D. B. Armstrong, M. D.; Sc.D.; Executive Officer of the National Health Council.

An outline of what the community should do for the health of its citizens and what each person should do to make his community a healthy place.

*Cancer; Nature, Diagnosis, and Cure. By Francis Carter Wood, M.D.; Director, Institute for Cancer Research, Columbia University.

The best statement about cancer ever written for the laity. It tells what it is and how to know it and have it cured.

*The Human Machine; How the Body Functions. By W. H. Howell, Ph.D., M.D.,

LL.D., Sc.D.; Associate Director, School of Hygiene and Public Health, Johns Hopkins University.

A non-technical, literary description of the anatomy and physiology of the human body, the most wonderful machine of all.

*The Young Child's Health. By Henry L. K. Shaw, M.D.; Clinical Professor, Diseases of Children, Albany Medical College.

How to care for the health of the run-about child from two to six years of age.

*The Quest for Health; Where It is and Who can Help Secure It. By James A. Tobey, M.S.; Administrative Secretary, National Health Council. (Tentative.)

A statement of what health is, how it may be obtained, and a description of the actual help which the government, states, municipalities, physicians, and voluntary health agencies can give to individuals.

*Taking Care of Your Heart. By T. Stuart Hart, M.D., President, Association for the Prevention and Relief of Heart Disease, New York.

How to avoid and prevent heart troubles, which form the leading cause of death in this country.

*Food for Health's Sake; What to Eat. By Lucy H. Gillett, M.A., Superintendent of Nutrition, Association for Improving the Condition of the Poor, New York.

An outline of what and how to eat for maximum efficiency and health building.

The Child in School; Care of Its Health. By Thomas D. Wood, M.D.; Professor of Physical Education, Teachers College, Columbia University.

Promotion of health habits in children of school age and exactly how to go about it.

Tuberculosis; Nature, Treatment, and Prevention, by Linsly R. Williams, M.D.; Managing Director, National Tuberculosis Association.

Covers the whole field of tuberculosis, the cause, spread, treatment, prevention and duties of citizens, patients, and the community.

Love and Marriage; Normal Sex Relations; By T. W. Galloway, Ph.D., Litt.D.; Associate Director of Educational Measures, American Social Hygiene Association.

The various elements, biological, social, and sexual, which make up a successful and happy married life.

Health of the Worker; How to Safeguard It. By Lee K. Frankel, Ph.D.; Chairman, National Health Council.

Hygiene and sanitation in factory and shop and how industrial workers can protect and promote their health.

Exercises for Health. By Lenna L. Meanes, M. D., Medical Director, Women's Foundation for Health.

Illustrative material giving to individuals the type of exercise best suited to each one's personal needs.

Venereal Diseases; Their Medical, Nursing, and Community Aspects. By W. F. Snow, M.D., General Director, American Social Hygiene Association.

A non-technical discussion of cause, spread, treatment, cure, and prevention of each of these diseases and related social hygiene questions.

Your Mind and You; Mental Health. By Frankwood E. Williams, M.D., Medical Director, National Committee for Mental Hygiene.

Describes how your mind can be a friend or enemy and how it can be enlisted as your ally.

The Expectant Mother; Care of Her Health. By R. L. DeNormandie, M.D.; Specialist, Boston, Mass.

The health care needed during pregnancy in order that both mother and baby may be healthy and well.

Home Care for the Sick; By Clara D. Noyes, R. N.; Director of Nursing, American Red Cross.

What to do in the home when illness is present. Practical suggestions for the care of the sick.

Adolescence; Educational and Hygienic Problems. By Maurice A. Bigelow, Ph.D.; Professor of Biology and Director School of Practical Arts, Teachers College, Columbia University.

The scientific and sociological aspects of adolescence to explain the proper transition from childhood to adult life.

The National Health Series, 20 Volumes. 18mo, Flexible Fabrikoid. Average number of pages, 70. Price per set, \$6.00, net; per volume, 30c. net.

†The National Health Council is composed of the following representative organizations:

Direct Members

American Child Health Association.
American Medical Association.
American Public Health Association.
American Red Cross.
American Social Hygiene Association.
American Society for the Control of Cancer.
Conference of State and Provincial Health Authorities of North America.
National Committee for Mental Hygiene.
National Organization for Public Health Nursing.
National Tuberculosis Association.

Conference Members

United States Public Health Service.
United States Children's Bureau.

Associate Members

American Association of Industrial Physicians and Surgeons.
National Committee for the Prevention of Blindness.
Women's Foundation for Health.

Rheumatic Heart Disease in Children Under Two Years of Age

In three cases of carditis in children under 2 years of age, related by B. S. Denzer, New York (Journal A. M. A., April 19, 1924), the rheumatic origin has been proved by finding either subcutaneous fibroid nodules or Aschoff bodies. Denzer believes that careful search for these may lead to the discovery of a greater number of cases of heart disease in infancy of rheumatic origin.

A New Operation for Slipping Patella

Robert Soutter, Boston (Journal A. M. A., April 19, 1924), passes a strip of fascia lata through a tunnel extending through the patella and the upper end of the tibia at an angle of about 45 degrees.

A Scarlet Fever Antitoxin

George F. Dick and Gladys Henry Dick, Chicago (Journal A. M. A., April 19, 1924), have shown that the streptococci which cause scarlet fever produce a toxin, and that this toxin, when injected into susceptible human beings, produces nausea, vomiting, general malaise, fever and a scarlatinal rash. Used in high dilutions, the toxin gives a skin test for susceptibility to scarlet fever. In more concentrated solutions, it can be used in preventive immunization. The blood serum of persons immunized with the toxin and of patients convalescent from scarlet fever contains an antitoxin that neutralizes the toxin. This has been determined by means of the skin test. A scarlet fever antitoxin has been obtained by immunizing a horse with scarlet fever toxin. This antitoxin may be concentrated by the methods employed for concentrating other antitoxic serums. The therapeutic value of the antitoxin can be determined only when the results of its use in a large series of carefully controlled cases are available.

Four Generations of Polymastia

George H. Klinkerfuss, St. Louis (Journal A. M. A., April 19, 1924), found this anomaly in four generations of one family. In each case but one the left axillary region was the one involved. In the case of the mother of the patient swellings were noticed in both axillae. The great grandmother, the great aunt, the grandmother, and the mother of the patient gave a definite history of polymastia. Klinkerfuss urges that these tumors of the axilla, enlarging in pregnancy and keeping pace with the rapid enlargement and engorgement of the breasts in the early puerperium, should be classed as polymastia. Apparently the masses without nipples have some connection with the normal breasts, possibly by an elongated duct. These accumulations of breast tissue should not be confused with inflammatory processes; and the patient should be assured that they have nothing in common with carcinoma of the breast.

Bilirubin Determination in Cholecystitis Without Jaundice

The report made by J. C. Friedman and David C. Straus, Chicago (Journal A. M. A., April 19, 1924), is based on a study of twenty-nine cases of cholecystitis, either proved by operation or in which the diagnosis seemed beyond question. Twenty-two of the cases, or 62 per cent of the twenty-nine, were proved by operation; the other seven cases, or 38 per cent, presented what seemed to be unassailable clinical and roentgenologic evidence. The authors employed two laboratory tests for hyperbilirubinemia, the Van den Bergh and the Fouchet, in order to determine whether the Fouchet method could not be used instead of the more complicated Van den Bergh method. The Fouchet test was positive twenty-eight times; negative, nine times, and doubtful once. One or the other, or both direct and indirect Van den Bergh tests, were positive twenty times, negative fifteen times, and doubtful three times. In other words, the Fouchet test was positive in 74 per cent, whereas the Van den Bergh was positive in only 53 per cent, i. e., 21 per cent less often. It seems probable that, if

examined during the attack, more than 90 per cent of cases of cholecystitis without evident jaundice show hyperbilirubinemia. Hyperbilirubinemia was found in 83 per cent of cholecystitis cases, being present in 93 per cent of cases during the attack, and 73 per cent of cases during the interval, the latter being defined as the condition when gastric symptoms are present, but not pain. The Fouchet test is recommended for clinical purposes as being simpler and less sensitive than the Van den Bergh test, reacting only when the blood serum contains a pathologic amount of bilirubin. The presence of hyperbilirubinemia is of value in deciding between cholecystitis and gastric and duodenal ulcer or carcinoma. Its presence is of no value in differentiating from pneumonia. Here latent jaundice was found in 50 per cent of the nonicteric patients examined.

Paralysis of Left Recurrent Laryngeal Nerve

Mitral stenosis in rare instances may cause paralysis of the left recurrent laryngeal nerve. One such case is cited by George E. Price, Spokane, Wash. (Journal A. M. A., April 19, 1924). The probable cause of this paralysis is pressure, the nerve being squeezed between the left pulmonary artery and aorta or aortic ligament. The paralysis may occur at any time during the course of a mitral stenosis, either as the first symptom noticeable to the patient, or abruptly during a break in cardiac compensation. Prognosis depends on the duration and severity of the pressure, and ability on the part of the heart to respond to appropriate treatment for the valve lesion.

Citrated Blood Transfusion

An experimental study was made by Minas Joannides and Angus L. Cameron, Minneapolis (Journal A. M. A., April 12, 1924), of the toxicity of sodium citrate in exsanguinated dogs. They found that citrated blood is a very desirable transfusion medium provided the amount of sodium citrate injected along with the blood does not exceed the

maximum safe dose. The commonly accepted maximum safe dose of sodium citrate for the human being is 5 gm. Therefore, if analogous conditions prevail in man as compared to the dog, relative to the toxicity of sodium citrate, one may safely transfuse an exsanguinated human being with as much citrated blood as is ever used in a transfusion and still be far under the danger point so far as the amount of sodium citrate administered is concerned, for 2,500 c.c. of 0.2 per cent citrated blood would contain only 5 gm. Objections to the employment of citrated blood as a transfusion medium in cases of exsanguinated human beings, based on the experimental work already quoted, are held to be unwarranted.

Congenital Goiter

Twelve cases of congenital goiter are reported by H. H. Skinner, Yakima, Wash. (Journal A. M. A., April 12, 1924). He asserts that congenital goiters are more common than it has been ordinarily supposed. They are caused by iodine deficiency in the mother's diet. All grades of pathologic change may be seen, from a simple parenchymatous goiter with no symptoms, to marked enlargement, with complete tracheal compression, and cystic conditions causing serious danger to mother and child. Treatment is surgical for emergencies, but mainly prophylactic by means of iodine administration to the mother.

The Management of Abortion

Nine hundred and sixty-one consecutive cases of abortion have been subjected to a detailed study by Onslow A. Gordon, Jr., Brooklyn (Journal A. M. A., March 29, 1924). He concludes that all cases of abortion, threatened, inevitable or incomplete, should be treated conservatively until it is demonstrated that conservative treatment has failed. Conservative treatment, properly executed, will fail in something less than four cases out of a hundred. The mortality and morbidity in abortion cases is in direct ratio with the degree of intra-uterine intervention.

The more manipulation and intervention, the higher the mortality and morbidity. Curettage in abortion transposes many aseptic cases into septic cases. Curettage, therefore, is not only seldom indicated, but is often actually harmful. Conservative treatment has, if possible, a more positive indication in septic cases than aseptic cases.

The Demonstration of Prostatic Enlargement by the Roentgen Ray

Edgar G. Ballenger, Omar F. Elder and William F. Lake, Atlanta, Ga. (Journal A. M. A., March 29, 1924), have found that air cystograms with the patient lying face downward clearly demonstrate the intravesical snouts, median lobe enlargements, and similar conditions in prostatic hypertrophy. They do not advise its use in every case, but rather in those in which additional information is necessary in deciding whether an operation is required and whether it shall be the suprapubic or perineal approach.

Sarcoma of Choroid

Connie M. Guion and Conrad Berens, Jr., New York (Journal A. M. A., March 29, 1924), report a case of diabetes complicated by glaucoma which was caused by a melanosarcoma of the choroid. The outstanding feature of this case as one of diabetes was the heavy content of diacetic acid and acetone and the persistent trace of sugar in the urine unchanged by starvation or diets, but always increased by an exacerbation of the severe pain in the eye. After the enucleation of the eye and the cessation of the pain, almost immediate disappearance of the sugar, acetone and the diacetic acid was striking.

Bilateral Sacro-Iliac Obliteration

During the study of a number of sacro-iliac cases it was found by S. C. Woldenberg, Chicago (Journal A. M. A., March 29, 1924), that a certain percentage showed a complete ankylosis or synarthrosis of the sacro-iliac joints. The clinical symptoms as recorded are a dull, aching pain, inability to lie down

without great discomfort, rigidity of the muscles of the back, spasms of the muscles of the back, and atrophy of the gluteal fold, with obliteration of the normal lumbar curve and marked limitation of forward bending. The roentgen-ray findings are distinct erosion or alteration of the articular surfaces, and decreased joint space (sometimes reaching the stage of total obliteration with resulting ankylosis). These clinical symptoms and roentgenologic findings give evidence of a low-grade inflammatory process for which no causation can be proved.

True and False Presystolic Murmurs

Further data are given by William D. Reid, Newton, Mass. (Journal A. M. A., March 29, 1924), concerning the mechanism of the crescendo murmur, and to re-emphasize that there are two murmurs, one the so-called presystolic and the other properly termed presystolic, if one elects that terminology. Not all authorities today are satisfied with the term "presystolic" for the murmur of mitral stenosis. In 100 successive necropsies of medical cases, there were eight showing organic stenosis of the mitral valve, and but one of these was diagnosed in life. In none of the eight was any type of presystolic murmur noted. In two other patients a presystolic murmur was recorded, but the necropsy disclosed no stenosis of the mitral orifice. The crescendo murmur ending in the first sound does not necessarily disappear when auricular fibrillation is present. It should be kept clearly in mind that there are two murmurs, one of rather rare occurrence and produced by contraction of the auricle, and the other, which is more common, due to the first part of ventricular systole. The latter murmur is due to a regurgitation of blood into the auricle. Confusing the true and the false presystolic murmurs leads to diagnostic errors.

Infections of the Lip

Three fatal cases of lip infection are reported by Maurice Kahn, Los Angeles (Journal A. M. A., March 29, 1924). One patient

picked open a pimple with a needle and squeezed it. He died thirty-six hours later. No necropsy was done. The second case gave the same history. Secretions from the wound showed *Staphylococcus aureus*. The patient died on the sixth day. The third patient with a similar history died on the tenth day. Kahn says that *Staphylococcus aureus* is almost invariably the infective agent in these cases. The fatal cases usually show cavernous sinus thrombosis or metastatic abscesses of the lung in various parts of the body, with thrombophlebitis of the facial vein and its tributaries. It is pointed out that the reason for the fatalities lay in the abundant vascular drainage of the region of the lips, thus making more likely venous thrombosis. Having in mind also the absence of connective tissue spaces, it will be seen that in infection of the lip the infective agent is brought into immediate intimate contact with the venous plexus of the lip. The almost constant motion of the lips has a tendency to disseminate the infection early in the disease by what is a mild degree of squeezing or rubbing of the infection against the vein wall. Later on, when the swelling has become marked, the pain would of itself inhibit any great amount of motion. But before this stage has been reached, another factor has entered and one of supreme importance, i. e., the squeezing.

Survey of the Narcotic Problem

Carleton Simon, New York (Journal A. M. A., March 1, 1924), sent out a questionnaire to physicians and dentists of the state of New York to secure data on the narcotic problem, especially the use of morphin, heroin, and cocain. He remarks incidentally, that the responses to this appeal were most hearty, and again furnish exhaustive evidence that the professional man is an altruist in lending his aid in the solution of great public issues. The information derived from this study shows that the narcotic addict exists. His addiction is the result of physical or medical causes in only 2 per cent of all cases among the thousands

observed by the police. In those few instances of true medical addiction treated by the medical profession in the state of New York for 1922, the great preponderance show that they were treated for disease and not for drug addiction. Because of the fact that addiction has its origin or is coupled with crime or with criminal environment in 98 per cent of the police cases, the problem is in the category of criminology, and therefore comes within the province of the police. The quantity of the various habit-forming drugs purchased by physicians and by dentists is well within the needs of their patients. These legitimate amounts represent only an infinitesimal proportion of what is trafficked in through underground channels. Heroin has no specific uses in medicine in the opinion of approximately 80 per cent of the practitioners consulted. Cocain is useful in medical practice as a topical anesthetic in various conditions of the eye, the nose, the throat and the genito urinary parts. Eighty-three per cent of the physicians and 94 per cent of the dentists who answered the questionnaire are of the opinion that cocain can be dispensed with in practice through the use of procain or other non-habit-forming synthetic compounds. Underworld addicts have a decided preference for heroin and cocain.

The Intraperitoneal Administration of Neo-Arsphenamin

William Rosenberg, Cleveland (*Journal A. M. A.*, March 1, 1924), injected neo-arsphenamin intraperitoneally into thirty-five rabbits. The reactions that followed varied somewhat. Those animals receiving dilute solutions of the drug differed in their behavior from those receiving concentrated solutions in that they showed the greater discomfort, being content to lie quietly, with heads retracted, and respirations increased. Recovery was usually complete in a few hours. Those animals receiving concentrated solutions continued their activity in

many instances, and regained their normal activity in shorter time than those receiving the dilute solution. No difference in behavior was observed with either physiologic sodium chlorid solution or distilled water. Injections were given in single and multiple doses, from 90 to 195 mg. per kilogram of body weight in each series. The animals were killed from twenty-four hours to 439 days after the last injection. Neo-arsphenamin was administered intraperitoneally with distilled water and physiologic sodium chlorid solution as the solvents, in solutions of 1 and 2 per cent. One patient with congenital syphilis was treated with neo-arsphenamin intraperitoneally with beneficial results. It is Rosenberg's opinion that the use of the intraperitoneal route for the administration of neo-arsphenamin is a safe procedure and may be of aid in the treatment of congenital syphilis.

The Diagnosis of Congenital Obstruction of The Duodenum

When a new-born baby has copious bilious vomiting Charles H. Schroeder, Duluth, Minn. (*Journal A. M. A.*, March 1, 1924), says congenital obstruction of the duodenum should be suspected. A very simple procedure will establish the diagnosis and at the same time serve to rule out a pyloric stenosis, which is always first thought of. This consists in passing a small catheter and thoroughly washing the stomach until the fluid returns clear. Following this, with a little patience, the tube is pushed through the pylorus into the duodenum, when, if there is an obstruction of the organ, a characteristic gush of bile-stained fluid will be obtained. The mere passage of the tube would rule out a pyloric stenosis while, in this condition, the gush of fluid would not occur. In a duodenal obstruction, the pylorus is unusually patent. Confirmation by roentgen-ray examination should not be omitted.

A New Test for Bile Pigments in Urine, Bile and Blood Serum

While investigating the relation of bile pigments and metabolism in dogs with complete obstructive jaundice, or with biliary exclusion in which the bile was eliminated through the urine by means of a cholecystonephrostomy, Robeht Kapsinow, New Haven, Conn. (Journal A. M. A., March 1, 1924), examined the urines as routine for evidences of intestinal putrefaction as demonstrated by the test for indican. He rarely found the indican test positive, but instead observed that the urine became deep green in every instance. The test for indican employed was the Obermayer test. It was found that all urines containing bile pigments when treated with Obermayer's reagent became a deep greenish blue at once. This color was not extracted by the chloroform, and therefore could not have been due to indican. Many urines from normal dogs did not give this reaction. The test was performed on many specimens of urine obtained from patients, and in no case was it positive except when bile pigments were present. None of the drugs used in medication were found to interfere with the test.

Possible Errors in the Diagnosis of Renal Tuberculosis

Renal tuberculosis is recognized clinically without much difficulty when the usual clinical data are present. Unfortunately, however, the diagnosis of the disease is frequently obscured, either by the absence of any clinical data indicative of involvement of the urinary tract, or by the presence of data that are suggestive of conditions other than tuberculosis. According to William F. Braasch and Albert J. Scholl, Rochester, Minn. (Journal A. M. A., March 1, 1924),

repeated examinations of the urine for the bacillus of tuberculosis, and guinea-pig inoculations at variable intervals, may be the only method of establishing the diagnosis. When repeated guinea-pig inoculations with the urine from one kidney are positive, even though no other clinical data are present, the inoculation results can usually be regarded as sufficient to warrant operation. The renal lesion in such cases is characterized by encapsulation of the infected renal areas. The number of pus cells found in the microscopic examination of the catheterized urine is not at all indicative of the extent of the lesion. The finding of one or two pus cells in the catheterized urine from the supposedly healthy kidney is not of much practical significance. Confusion of vesical granuloma accompanying renal tuberculosis with vesical neoplasm is not uncommon, and differentiation is best made by microscopic examination. With ureteral stricture, and particularly with secondary infection, the clinical data usually observed with renal tuberculosis may be obscured. Bilateral tuberculosis occurs more commonly than the usual clinical data indicate. In cases of bilateral renal tuberculosis in which only one kidney is markedly diseased, removal of this kidney is justified. Tuberculosis in the supposedly healthy kidney is probably a common cause of death within a year or two after nephrectomy. Spontaneous recovery from acute renal tuberculosis must be regarded as possible in exceptional instances.

The Insulin Treatment of Pre-Operative and Post-Operative Nondiabetic Acidosis

In two cases of preoperative acidosis due to starvation and incessant vomiting induced by an acute abdominal condition reported by David Fisher and Myron W. Snell, Milwaukee (Journal A. M. A., March 1, 1924). The action of insulin and glucose was spe-

cific. A third case of postoperative acidosis of a rather severe degree was practically unchanged at the end of twenty-four hours by the use of glucose alone by rectum. The subsequent administration of insulin brought about an immediate disappearance of the ketosis.

Treatment of Syphilis Coexistent With a Condition Simulating Diabetes

James E. Paullin and Harold M. Bowcock, Atlanta, Ga. (Journal A. M. A., March 1, 1924), are of the opinion that their experience, although very small, should encourage rather than discourage the most careful investigation and thorough antisiphilitic treatment of all cases of associated diabetes and syphilis in the hope of discovering new instances in which a cure may be attained.

HOW TO VISIT THE SICK

Rev. J. J. Ansley

1. Don't go unless you feel cheerful.
2. Speak in low tones but don't whisper.
3. Step lightly; don't act nervously.
4. Don't stay over 20 minutes unless you are helping.
5. Never stay to a meal.
6. Never talk of others who died with the same disease.
7. Never criticize others; speak some good word for every one mentioned; condemn no one.
8. Pray with them if circumstances call for it, but never pray simply as a duty.
9. If you sit up with the sick don't rattle leaves to read.
10. Don't smoke.

11. If you have a cold, don't go.

12. If you give money, don't tell it.

The above are some of the rules I have learned from years of observation. There are many reasons to support them. The reasons I leave to the reader's imagination.

Waverly Hall, Ga.

THE PHYSICIAN'S PLEA

I am your physician.

I need your co-operation; I desire your appreciation of my efforts.

I want to hold your friendship and to have you cherish my good will.

I aim to progress with my profession so as to give to you the most efficient treatment.

I desire to do good unto the poor and treat without financial reimbursement, deserving, needful patients; this is the commandment of all physicians.

It should be our mutual desire to give to each other our best efforts.

I am human.

I subsist not on praise nor mutual admiration.

The most sincere appreciation you can show me is to reimburse me as my services are rendered.

Thus I am better enabled to carry on fitly; to progress; to give to you and your fellow men my best endeavors.

I am your physician, so I ask that you do unto me as you would have others do unto you were you the physician.

DR. R. RUEDEMANN, JR.

An Announcement to the Medical Profession of Georgia

Following the Acme-International X-Ray Co.'s policy to supply the demands of the profession in a prompt and efficient manner, and to at all times assure the best of service on any type of X-ray equipment, we take great pleasure in announcing to our friends the opening of another branch office of

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This office will be under the general management of Mr. Albin Hajos, who is a pioneer in the X-ray field, having devoted the past twenty years to the X-ray and physio-therapy line. The experiences of Mr. Hajos have been not only in the promotion and sales of equipment, but he has also served many years as X-ray technician in one of the large institutions of the South. The multitude of physicians and institutions who have purchased equipment and have had dealings with Mr. Hajos will testify as to his thorough knowledge of the science and to the exceptional service which he has at all times rendered to his customers.

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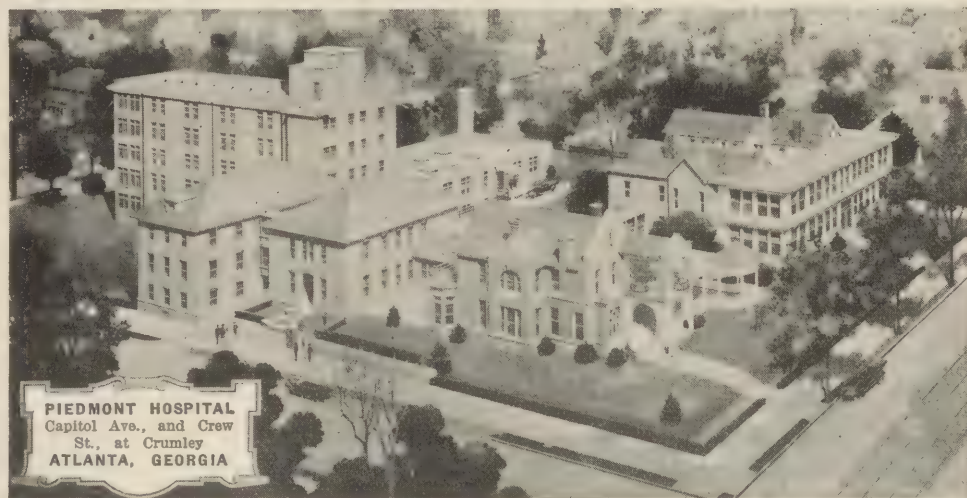
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PRESIDENT'S ADDRESS*

John W. Daniel, M. D.
Savannah, Ga.

In relinquishing office I wish to express my sincere appreciation of the honor you conferred upon me at your last annual meeting. Also, I wish to assure you that the spirit in which every member of this Association has responded when called upon to perform a duty is appreciated. There has been perfect accord and good fellowship existing at all times between your president and members of committees, and also perfect team work and great results for all of which I am grateful.

After twelve months' experience, I feel that I have the privilege of offering you advice, and will take the liberty of giving you my views on many shortcomings that exist in our Association. As no man has the right to offer criticism without offering a remedy, I will not violate that principle, but for every criticism I will endeavor to offer a remedy.

In the beginning, I wish to state that, in my opinion, the medical profession of Georgia is neglecting a wonderful opportunity to benefit the State and themselves. This opportunity consists in doing our duty to the people of Georgia by taking a more active interest in all things that pertain to Public Health and Hygiene. There is no reason why every county society should not have a live, aggressive committee that will undertake to educate the public to a realization of what is being offered by modern medicine in the line of prevention of diseases. There should not exist in Georgia a

single community that has not been told of the use of toxin-anti-toxin for the prevention of diphtheria; the use of typhoid vaccine; the modern methods of treating intestinal parasites with carbon tetrachloride; the wonderful results of rabies vaccination of dogs; the care of tubercular patients so that the danger of infecting the young will be reduced to a minimum. We should impress on the public that malaria, typhoid, smallpox, hookworm and dengue are diseases that can be prevented, and their existence in a community is due to ignorance plus a great amount of indifference of the enlightened, to the welfare of the poor and ignorant.

There is nothing unethical in a committee from any county society running a column in the weekly paper on Public Health, and signing it "By the Committee on Public Health of _____ Medical Society." If each county society will follow this plan for one year the members will see their community grow as it never grew before.

A man who is sick cannot be an efficient man, and inefficiency is today the greatest drawback that Georgia, from an economical standpoint, has to face. With malaria, hookworm and other preventable diseases existing in our midst, we, that are well, and live in communities that have a well regulated and efficient Health Department, do not appreciate the disadvantages under which our neighbor in the next county is laboring in his efforts to carry on with a body that is sick and only about sixty-five per cent efficient. It is our plain duty to inform our neighbor of the remedy for his inefficiency, for his dwindling bank ac-

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

count, for the depreciation in the price of his farm lands, etc. So let every councilor that is here today go home firmly resolved to undertake a year's work along these lines, and report next year what results he has noticed. Until this is done we shall never see Georgia at the top of all the Southern States again. The merchant, the banker, the laborer, the politician and the farmer should be educated to the realization of the great waste that sickness and death cause in a community, and, that the remedy is more efficient and aggressive work for Public Health. If the money is not in the treasury, cut the appropriations for useless job holders and apply the money to the preservation of health. The medical profession must take the lead. With these few facts before you I will leave the matter in your hands.

The By-Laws

I wish to call your attention to Chapter 6, Sec. 3, which defines the duties of the Committee on Public Policy and Legislation. This article as it stands prevents any active work ever being done. This section states that "Under the direction of the House of Delegates it shall represent the Association," etc. The hands of the Committee on Public Policy and Legislation are completely tied by having to report to the House of Delegates for approval before any steps can be taken to remedy an existing evil, or institute any active work toward getting a bill before the Legislature that will benefit either the public or the profession. As long as this article is on the books, you may as well discharge the Committee and let The House of Delegates, which is large and unwieldy, take all matters of legislation in hand—for your Committee cannot.

The Council

Being the Manager of The Journal of the Medical Association of Georgia, I desire to submit for their consideration the advisability of a full time Editor and Business Manager for The Journal. The compiling and

publishing of a readable Journal is as much of an art as the practice of medicine. A man, who is in demand at all times by his clients, can not give the time necessary to a Journal to make it compare favorably with Journals from other states and societies of similar magnitude.

With the number of cities and high grade medical schools in Georgia, each issue of our Journal should be filled with the best and most readable matter. An editor and business manager whose entire time is devoted to the Journal could come in close contact with the men of the state who are doing work, and persuade them to prepare papers for issues in advance, so that each succeeding issue would be as good as the former. While some of our leading men present papers at our state and district meetings, there are others, who for reasons best known to themselves, never present a paper. These men could be reached by personal contact with the Editor and give us more papers of a high class. At present, we have to limit our papers for the annual meeting with the result that this year, I was told by the Editor, the material was exhausted before the 1924 annual meeting. I feel that with a full time Editor, and an aggressive policy, and the assurance of publication, we could induce more men to undertake original work. It is a sad commentary, but we, of the South, do not work as we should along lines of investigation. We should develop our own ideas, and not accept all that is published and sold to us from remote centers. With present hospital facilities, laboratories, and facilities of other kinds we are now in position to produce original work. The same lack of publicity that existed in the days of Long, Campbell, Battley, Dugas, Arnold and others, exists today and hampers the doctors of Georgia in placing their work before the world.

If Georgia had had a medical journal with a wide circulation at the time of the discovery of ether as an anaesthetic, would there be any question today as to the discoverer? By some means Battley got his

operation before the world; Campbell, of Augusta, was known as the discoverer of the Campbell or knee chest position for correcting displacements of the uterus; Dugas, of Augusta, I am told, used phenol in surgery years before Lister made his methods known. Yet, for lack of facilities to get his methods before the world, Lister gets the credit. And if the medical history of Georgia was all written, we would be surprised to know how much Georgians have contributed to medical discoveries. So, gentlemen, consider this matter carefully, and, before we leave this convention, make a recommendation to the House of Delegates that will be constructive.

I also wish to offer for your consideration the advisability of closer relations between the District Societies and the President. The schedules, as now conducted, make it impossible for the President to visit all the districts in the state. If you would have a definite schedule for meetings, so that a series of meetings could be held in adjacent districts on successive days, then a period of no meetings, then resume a series, it would be perfectly feasible for the President to get around to all districts at least once during his term.

House of Delegates

As it is impossible to get your members together more than once a year, and, as so many matters arise during the interim that are of importance, I feel that it would be wise for you to appoint a committee, that will not be unwieldy, and that can be called by the President to advise with him on subjects that may arise.

The Post-Graduate Clinics that have been started through the local medical societies, should receive your support and good will. A committee from your body should be always on the alert to carry out Sec. 7 or Chapter 3 of the By-Laws. With a strong committee at work along the lines of research and the clinics, together with the cooperation of a full time Editor of The Journal, the medical profession of Georgia should reach a high standard, produce bet-

ter papers, and elevate our profession in the estimation of the public. We have good men, plenty of them, but for lack of encouragement and lack of cooperation, they become discouraged and thereby, become routine doctors. The good things that they do daily are never given to the world, the profession is not benefitted, and we all suffer. So let's encourage our men; let's cooperate; let each one of us resolve to do better work, and give it to the profession in our state first, then to the nation. We have the brains, the clinical material and the facilities, let's give the energy, encouragement and support.

It has occurred to me that if we could have some of our district societies combine their meetings at some hospital center, at least once a year, we could become better acquainted, broaden our ideas, learn what each community is doing, and thereby benefit the whole profession. This idea has been developed to some extent in Savannah for the coming mid-summer meeting. We, of the First District, have invited the Eleventh District Society to meet with us, and they have accepted. We have also invited the Second and Twelfth Districts, and hope they will accept our invitation. At this meeting, which will last for three days, the visitors will read the papers; the home men will hold clinics, and give lectures on various subjects. In this way we hope to develop all the men taking part. Next year the combined societies will very likely meet in some other district.

Relation of Medical Association to State Board of Health

The State Board of Health, under the original act creating the Board, consisted of medical men, the Commissioner of Education of the State, and one member from the Department of Agriculture. Since that time politics has begun to invade the province of medicine, and the medical men are gradually being displaced. The Medical Associations should begin to take an active

interest in this department of our state government, in order to protect it from the influence of the politician. Our committee on Public Policy and Legislation should immediately begin an active campaign for the purpose of having the State Medical Association recommend to the Governor for appointment all members constituting the State Board of Health.

As matters stand today, the appointments are made upon recommendation of local politicians. This should not be the case. There should be a better understanding and closer relation between the Governor and this Association. Furthermore, the act creating the State Board of Health should be so amended that the President of the Medical Association of Georgia automatically becomes a member of this Board during the term of his office. By this means, there would always be a close relation and better understanding between the medical profession and the State Health Department.

The State Medical Examining Board

Without meaning this as a criticism of the personnel of the present Board, in my humble opinion, this Board also should be appointed from a list recommended by this Association. These two suggestions are not offered in a spirit of destructive criticism, but realizing the political influence in all matters relating to our government, both national and state, it is high time that our enlightened and unselfish citizens, of which the Medical Association of Georgia is composed, should take a deep interest in such vital matters as State Health, and the qualifications of men applying for the privilege of practicing the Healing Art in Georgia. The layman is not in a position to know the qualifications of any man. When the state gives its stamp of approval, and a man is permitted to practice in our midst, this license should be ample guarantee to uninformed laymen that his health, and often his life, will receive the best skill and protection that modern science has to offer.

Our standard of medical practice and requirements for license should be raised; our examinations should be very rigid. The medical practice act should be amended, having only one Board of Examiners to examine all applicants applying for license to practice in Georgia. The followers of any school or cult, prescribing drugs or not, should be examined on anatomy, physiology and pathology. No distinction should be made between applicants. All should be required to have a thorough knowledge of the fundamentals of medicine. A college degree should be required.

Committee on Public Health and Education

This Association should to a man get behind this committee. Our state is now being invaded by various organizations that are soliciting membership on the basis of giving health (?) examinations to its members. Personally, I know nothing of the scope of these examinations, but I cannot understand how a physician can give the time necessary for a complete physical examination to any one for the sum of two dollars. Furthermore, I do state emphatically that the method pursued by some of these companies in having the urine sent to the home office for examination is not a square deal to the man paying the fee. For all doctors know full well that the presence of albumin in the urine does not in every case mean a diseased kidney. On the other hand, the absence of albumin does not, in every case, mean a healthy kidney. The presence of sugar in a single specimen of urine does not always mean diabetes mellitus, and its absence does not necessarily mean that the man is not a potential diabetic. A low specific gravity does not always mean that the patient has no sugar in his urine, and to the contrary, the high specific gravity does not mean that he has no albumin. Therefore, without the personal **contact of a capable physician, who is competent to take a complete history and evaluate each point brought out, who is also**

competent to make a complete physical examination and interpret his findings, and make a thorough laboratory investigation if indicated, I state emphatically that such a membership purposing to guard the health of its members is a snare and a delusion. For this reason I ask that this Association give its full support to the Committee on Health and Education. If necessary to protect the public, the laws of Georgia should be so enacted that all activities from any source along the line of health preservation should be under the control of the Department of Public Health.

This is a very vital point from more angles than one. Our people are being imposed upon; they are being made to feel safe and secure although having an incomplete examination; they are paying their good money into the hands, oftentimes, of foreign corporations, whose sole interest is the fee derived. While the medical man in the community is often underpaid, and more often not paid at all, for valuable services rendered to a person holding membership in these foreign Health Protective Organizations.

Public Health

At present, there exists in our state numerous societies and organizations, the object of which is to better health conditions. We have the Parent-Teachers' Association, the State-Wide Health Association, the State Tuberculosis Association, and others. It is the plain duty of the members of the Medical Association to become interested in these lay organizations, and lend them all the help that is within our power. In my opinion, our Committee on Public Health and Education should be so enlarged that in every Congressional District we would have an active member whose duty it should be to keep in touch with these organizations. The health work should always be under the supervision of the State Medical Association. If we would only lend our assistance to these good people of Georgia who are trying to do this noble work, which

we need so badly, better progress would be made, and the results would redound to the credit of the medical men.

We should endeavor to bring about cooperation between these societies and the State Medical Association. By combining the personnel of all, we would have sufficient strength to make an impression upon the political leaders, and get better results in all lines of endeavor. Georgia, at present, appropriates the niggardly sum of ninety thousand dollars annually, or three cents per capita for public health work; Florida, a state of smaller population and area, appropriates twenty-five cents per capita; North Carolina gives sixteen cents per capita, etc. The result is that Georgia has gone down in the economic scale from first place in the South to the sixth place and will go lower unless the medical men of this state educate the people to the realization that health is the first requisite to success in any undertaking.

The business men, the bankers and the railroad presidents are anxiously waiting for us to take the lead and show them the way to bring Georgia back. The Parent-Teachers' Association is waiting for us to help them produce a better condition in our educational system to bring about a better physical and mental condition in the coming generation. Gentlemen, it is plainly our duty to take up this work with the determination that we will save Georgia. If we take this step and get acquainted with the people of the state, we'll show them that we have their interest at heart; that our time, our knowledge and our money is at their command; we shall soon be called blessed by a people who are looking for a leader—some one to show them the way. We shall increase our usefulness, and, at the same time, gain greater respect and friendship from the people at large.

We must get away from the old idea that a medical man should not be a leader in government affairs. Who is any better fitted to lead than the doctor? He is edu-

ated; he knows the needs of the people; he knows sacrifice, service, and hardship better than any other man in the community. Having all these virtues, why should he not lead? Why should the lawyer be the leader in all things pertaining to government? We who have been educated to serve and to sacrifice in order that others might live, should lead. It is now time that we should realize our country needs us for other purposes than that of ministering to the sick. There is no nobler profession on earth than ours, yet we are not doing our full duty when we apply our knowledge of men and affairs to nothing other than medicine. We should become active in affairs of state, also national affairs; we should lead in uplifting and creating better manhood and womanhood; we should lend our efforts toward cleansing our political system.

I want to congratulate the members of this organization, who, each year, give freely of their time as representatives, both in the House and the Senate of Georgia. I feel that they are doing a noble work for the people; they are helping to build better Educational and Health Departments. We should stand back of these men, and give our assistance in every way to their efforts. Let it be known that we stand for better government, better health, better educational facilities, and that we are ready and willing to cooperate with all who are working along these lines. Let our local medical societies get in touch with other local organizations doing health work and offer our services. They need us—we need them.

I wish to call your attention to the work that Mercer University is doing this year in the Woman's Extension Course. This Society has been asked to contribute six lecturers for the course. Your worthy Chairman of the Committee has cooperated with the University authorities, and six doctors have offered to serve. This department of Mercer University deserves our full support, and I ask of each member that he

or some member of his family, attend some of the lectures this June.

The State-Wide Health Association

In this organization we have the common ground on which the business man and the doctor can meet to discuss matters of health and legislation. It is the duty of every doctor in this State to become a member of this organization. We have a wonderful opportunity, with the aid of the business men, to benefit our State in many ways. We can aid in legislation that will be of great benefit in public health, education, sanitation and allied work. The business men are waiting for us to lead; they are willing to follow, and, at the same time, lend their money and personal influence. I hope you will not pass over this matter lightly, but will give it serious thought, and act as a body. The Legislature meets in June, and is ready to act if we will only lead. The time is now ripe for great things in Georgia, and we must not miss the opportunity to take the lead and KEEP IT.

The Medical Reserve Corps

A great number of the members of the State Medical Association gave their services freely during the World War in order that our principles of Democracy should live. At the present time, we are being menaced by the opponents of Democracy from many angles. Those of us who have been in touch with international affairs will recall the note of Secretary Hughes regarding the insidious attack of the Russian Bolshevik Government upon our institutions. Just a few days ago General Bowley, of the United States Army, made a vigorous and outspoken attack upon the pacifists and other organizations that are now working for the demoralization and demobilization of our first lines of defense. Undoubtedly there are a great number of true Americans who have been deceived by the appeals of our enemies, and they are unknowingly giving their aid to the undoing of our government.

I am so strongly convinced of the activities of our enemies that I take this occasion to appeal to you, as Americans, to again offer your services as Reserve Officers in the Army and Navy. I hope that you will take cognizance of this request, and that this organization will go on record as upholding the government in its efforts to build up a strong first line of defense, and that the majority of the men present will soon be back in the service as Reserve Officers.

With these suggestions for your consideration, I again wish to thank you for your cooperation and assistance, and hope that you will give to my successor the same cordial support that I have received.

MEDICINE—PAST AND PRESENT*

A. J. Mooney, M. D.
Statesboro, Ga.

In introducing Sir John Bland Sutton, the occasion being the delivery of a Hunterian oration, Rudyard Kipling began his introduction as follows:

"There is a legend, which has been transmitted to us from the remotest ages which has entered into many brains and colored not a few creeds. It is this: Once upon a time, or rather at the very birth of time, when the Gods were so new that they had no names, and man was still damp from the clay of the pit whence he had been dug, man claimed that he, too, was some sort of deity."

The Gods were as just in those days as they are now. They weighed his evidence and decided that man's claim was good—that he was, in effect, a divinity, and as such entitled to be freed from the trammels of mere brute instinct, to enjoy the consequences of his own acts. But the Gods sell everything at a price.

Having conceded man's claims, the legend goes that they came by stealth and stole away this godhead with intent to hide

it where man could never find it again, but this was not easy. If they hid it anywhere on earth the Gods foresaw that man, the inveterate hunter, would leave no stones unturned, or wave unplumbed till he had recovered it. If they concealed it among themselves, they feared that man might, in the end, batter his way up even to the skies. And while they were all thus undecided, the wisest of the Gods, who afterwards became the God Brahm, said, "I know, give it to me!" And he closed his hand upon the tiny unstable light of man's stolen godhead, and when that great hand was opened again, the light was gone. "All is well," said Brahm. "I have hidden it where man himself will never dream of looking for it. I have hidden it inside man himself."

"Yes, but whereabouts inside man have you hidden it?" all the other Gods asked. "Ah!" said Brahm. "That is my secret, and always will be until man discovers it for himself."

Thus from the remotest age legend commences the mystery of man. Ever searching for cause and effect and trying to solve intricate problems of life, a nature and its complex by-problems, man has, from the beginning, been a searcher. Struggles and toils, misfortune and dangers to life and health were attributed to perverse divinity or demons, who found pleasure in inflicting pain and misery on mortals, these demons or divinities requiring sacrifice or worship to propitiate them. Thus, was founded the cause for superstition and various forms of appeasement and witchcraft and magic. Humanity began to fear the devil before they imagined the God.

All living beings fear death—a natural fear. From the beginning human beings realized that to avoid death and prolong life the body had to be kept healthy, illnesses were to be avoided and if they occurred some means were to be taken for their cure. But when man understood that illness is al-

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

most inevitable and that disease is not always cured or curable, then the imagination began to have full play and with it the birth of superstition and magic. The charlatans flourished. Palmists, fortune tellers, necromancers, magicians, clairvoyants and the like flourished and grew fat financially by their predictions of the future, selling of love philters, etc. Some devised mystic charm words such as "Abracadabra" or "Hax Pax Max" that would conjure away or cure disease. When we consider the cults, pathies, "Abrahm's Method" and such tainted innovations that smack so strongly of ancient superstition under a mask of psuedo science, it makes us wonder whether the average intelligence of this day is much superior to that type of ten centuries before Christ. The priests were the ancient physicians. They were held in awe and reverence. Philosophy has always been more or less connected with medicine.

The true history of European medicine begins with Pythagoras, the Philosopher of Samos, who lived six centuries before Christ. He was a medical man because it was a part of philosophy. He traveled extensively in Egypt and India and returned to Greece filled with the mystical ideas held by the priests of those countries. With Hippocrates, the physician of Cos, who was born 460 or 459 B. C., began medical theorization. This "Father of Medicine" introduced some generalizations that are as good and true now as they were then. "Theory is the flower, not the root of experience," was his motto. He struck the first telling blow against magic and sorcery when he laid down the rule that "No disease comes from the gods, one more than another, each acknowledging its own manifest and natural cause." He taught that "natural powers are the healers of disease." He treated patients by regulating their diet, prescribing baths, purgatives, diuretics, venesection, and eschewing to a remarkable extent the ridiculous drug mixtures used at that time.

What can be more noble and inspiring

than the oath of the Coan School, now known as the Oath of Hippocrates?

"With purity and with holiness will I pass my life and practice my art. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and further, from the seduction of females and males, of freemen and slaves. Whatever in connection with my professional practice, or not in connection with, I see or hear, I will not divulge, as reckoning that all things should be kept secret. While I continue to keep this oath inviolate, may it be granted to me to enjoy life and the practice of my art; respected by all men at all times; but should I trespass and violate this oath, may the reverse be my lot."

With the influence of Aristotle, Herophilus, the celebrated anatomist of this time, Erasistratos, Celsus (A. D. 25) and Galen (in whose time, by the way, specialists flourished, especially in Rome) the scientific side of medicine was forged forward until a pall of darkness fell over Europe with the fall of Rome, when hordes of savage barbarians overran the civilized world and destroyed cities. The wandering tribes of Huns and Goths demolished everything they could not carry away. The tolerance of the Arabs was the saving grace of civilization. The lamp of learning which had been extinguished in Europe was relighted and the knowledge of Hippocrates, Aristotle and Galen was once more the guiding star for medical science.

This, the Byzantine period, was not marked by any particular knowledge in medicine; Aetius, born during the sixth century, an author who left a compendium on medicine, known as the "Tetrabiblion," Alexander of Trolles, born 525 A. D., who wrote on fractures and mental diseases and described the ascarides, lumbricoides and

taenia; Jacobus Polyschrestus, who, on account of the employment of enemata and suppositories rather than the use of the knife, was called "The Beloved of God." Paulus, of Aeginia, who lived in the seventh century wrote voluminously on medicine.

Medicine in Arabia had its Hippocrates in the great Rhazes, who was born in 852 at Rei, a city of Persia. He traveled, studied and observed in many countries, making a study of all nature. A voluminous writer, having written no less than two hundred and twenty-six books, he attained great dignity, becoming Court Physician and the friend of princes. It was the irony of fate that he died poor, blind and friendless at the age of eighty. He cautioned against drastic measures in the treatment of disease, writing, "Where thou canst cure by diet, use no drugs; where simple measures suffice, use no complex ones." He described the symptoms and cause of hydrophobia. He also wrote learnedly on erysipelas, smallpox and measles.

But greater than Rhazes was his successor, Avicenna, who was born at Bokhara 980. He was the first to codify Greco-Arabian medicine, and attempted to make medicine a mathematical science. He died in 1036, aged 56 years, and was buried in Hamaden, where his grave is pointed out to this day.

The last of the leading physicians of the middle ages was Maimonides, the great Jewish physician, who was born in Cordova in the year 1135. He was a physician, poet and philosopher. He came from a family of judges and rabbis. In his writings he was often at variance with his predecessors and felt free to confess ignorance where positive knowledge was not forthcoming. He it was who said it was possible for a wise man to learn from a fool and often remarked to his scholars, "Teach thy tongue to say, I do not know." After several years of practice he was appointed court physician to the Sultan. It is said that Richard, Coeur de Lion desired to take him to England as his court physician, but the Hebrew doctor declined the honor. He con-

sidered the purpose of medicine as follows:

"To teach humanity the causes of ill health, the correct dietetic hygiene, the methods of making the body capable of useful labor, how to prolong life and to avoid disease. It thus elevates the human being to a high moral plane where the pursuit of Truth is possible and where the happiness of the soul is attainable."

He died at the age of 69 (A. D. 1204), in Fostat, where both Jews and Mohammedans observed public mourning for three days, and, buried at Tiberius, his tomb became a place for pilgrimage.

He has been called the "Eagle of Doctors," "lumen captivitatis" and "Moses Aegyptius," and the Arabic poet called him Ibn Amram and sang his praise as follows: "Galen's art heals only the body,
But Ibn Amram's the body and soul,
With his wisdom he could heal the sickness
of ignorance,

If the moon would submit to his art.
He would deliver her of her spots at the
time of full moon,
Cure her of her periodic defects,
And at the time of her conjunction save her
from waning.

The medical men thus far recorded were the leaders in the conquest against magic, witchcraft, necromancy and diabolical remedies. There are many lesser lights, but to enumerate them would make this paper far too lengthy.

In the sixteenth century Leonardo shined forth as a leading light, especially in anatomy, as did Sylvius. Hunter, the greatest English Surgeon of the time of George III, examined the ancient anatomical drawings of Leonardo and pronounced them marvelous. After Leonardo came Andreas Vesalius of Brussels, who was himself a great anatomist. He lived from 1519 to 1564. At the age of 22 he became Professor of Anatomy in the University of Padua, where his enthusiastic lectures and demonstrations attracted crowds of students. He audaciously dissected human beings and held autopsies. However, his passion for autopsies was his undoing. Once he performed an

autopsy on a great nobleman, and when he opened the chest, all who were present observed that the heart was still beating. For this act of impiety he was condemned to death by the Holy Inquisition, but was saved by the King's intervention, his sentence being commuted to a penance journey to Jerusalem. On his journey thither his ship was wrecked and he died from hunger and exposure. Contemporary with him were Caesal Pinus, Eustachius, Fallopius, Servetus, Ingrasias and Realdus Columbus, all anatomists.

To Servetus is probably due the discovery of the pulmonary circulation, yet it was William Harvey of Folkestone, England, who first described the circulation of the blood. His theory was disputed by many of the leaders. It was about this time that the first Scientific Society was formed, and at about this time was devised the first microscope (about 1665).

Ambroise Pare was born in 1517. He became an army surgeon, and his advent into the field of medicine and surgery was to mark a new era. He wrote illuminatingly on surgery and devised a ligature for bleeding vessels and modified the treatment of gunshot wounds.

A new era in medicine began with the eighteenth century. First of all, let it be recorded that Jenner discovered vaccination during the eighteenth century, enough within itself to mark an epoch for advancement and to occupy a niche in the hall of fame for all time. In Anatomy and Physiology we see such names as the two Hunters, Douglas, Cheselden, Scarpa, Winslow, the Meckels three, and Haller. In Embryology, Casper Frederick Wolff, of Berlin, stands preeminent. His teachings were followed up by such men as Oken, Meckel, Tiedeman and Panda (1733 to 1812). The comparative anatomists were Douglas, Hun-

ter, Blumenbach, John Barclay, Peter Camper and others.

In 1757 Black discovered carbon dioxide.

In 1766 Cavendish discovered hydrogen.

In 1772 Rutherford discovered nitrogen.

In 1771 Priestley discovered oxygen.

Other notables in chemistry were Becker and Stahl. Modern chemistry may be said to have been founded by Stephen Hales (1677-1761).

In 1679 Theophilus Bonet had issued "Sepulchretum," the first work on pathology, based on all the recorded autopsies up to that time. In 1745 John Astruc published his "Tractus Pathologicus." Other notables were Morgagni, who first described cerebral gummata and mitral valve disease; also tuberculosis of the kidney; was first to record a case of heart block (Stokes Adams disease). He also identified clinical features of pneumonia. Mathew Haille, Santorini and Bichat were contemporaries.

Materia medica and Therapeutics were classified and showed great advancement over the previous times.

The field of medicine was well represented by Boerhaave, the founder of the Eclectic School; William Collen, the great Scotch physician; William Heberden; John Huxham, and our own Benjamin Rush (1745-1813) of Philadelphia, who was one of the signers of the Declaration of Independence.

When we think of surgery of the long ago our first thought is of John Hunter, although he was preceded by Lawrence Heister, William Cheselden, and Percival Pott, whose name is concomitant with the pathological conditions it brings to your minds. John Abernathy also succeeded John Hunter.

America's shining lights in surgery were John Warren, of Boston, who performed a shoulder joint amputation in 1781, and Wright Post, who operated a femoral aneurysm by the Hunterian Method in 1796. At this time gynecology and obstetrics were re-

ceiving special attention. Smellie introduced the steel locked forceps in 1774 and the curved forceps in 1751. He also wrote the first text book on "Midwifery." In 1778 William Hunter wrote on "Division of the Symphysis Pubis."

Great were the pioneers of those days, only a few of whom I have mentioned. With the history of modern medicine begins the history of the things and measures used by us today. It records the work of Louis Pasteur. The antiseptic work of Joseph Lister (1827-1912); the laboratory work of Koch and Von Behring; Klebs and Loeffler and Eberth and the Americans, W. H. Welch, Simon Flexner and Theobald Smith. It is in this period that Schaudin discovered the spirocheta; August Von Wasserman and Paul Ehrlich the diagnosis and the most potent weapon to combat the great plague of man—syphilis. The Wasserman reaction and Salvarsan (with its latest derivatives and allied arsenicals stand forth within themselves as magnificent achievements. The great concept of immunity as worked out by Ehrlich and Wasserman and elaborated upon by Victor Vaughan opened up new lines of thought. But probably the greatest of all in the history of modern medicine is the discovery by Crawford W. Long of ether anaesthesia. Evanescent man made history may attempt to penalize a man for being modest. And the mercenary enthusiasm of a dentist who plagiarized may place the laurel on the undeserving brow for a time, but truth, always right, places the real laurel upon the brow and memory of Crawford W. Long, a Georgia country doctor.

With the teachings of Lister and other anaesthesia surgery grew by leaps and bounds. It produced in this country a Bigelow, a Gross, Keen, Sean; the Mayo Brothers. It brought forth Ephraim McDowell; J. Marion Sims; Thomas Addison Emmet; Spencer Wells; Lawson Tait of England; Howard A. Kelly, and others equally as notable.

The importance of physiology was comprehended. Even as early as 1889 artificial diabetes was produced by excision of the pancreatic gland. The discovery of the effect of adrenal extract, the study of thyroid disease, the investigation of parathyroid disease, of pituitary disease of the thymes gland and of the sexual glands are due to the stimulated interest in physiology.

The microscope, bacteriology, histology, pathology, with the resulting knowledge of bacteria and cell life were great advances; but the discovery of the X-ray by Roentgen in 1896 opened a new method of investigation. Great physicians there were in those days. It produced a Flint; Van Buren; Pepper; Osler; as diagnosticians they were most acute, especially with the stethoscope; they represented, we might say, the age of murmurs. Psychology and allied branches kept pace. Lest we forget, it is to the great English woman, Florence Nightingale, that the medical profession is indebted for one of its greatest allies—the trained nurse. Medicine may be futile; the combat may turn against us, but through lonely vigils against big odds, our ally, the trained nurse, ever works on, whether on battlefield, in hospital or home.

Where do we stand today as compared to the progress of the past? Let facts answer: The study of the subject of focal infections by that great departed, lamented surgeon, John B. Murphy; by E. C. Rosenow of the Mayo Foundation, and Dr. Frank Billings of Chicago, have cleared up many perplexing problems and while wonderful work has been done, still it is probably only a partially investigated field. Like many other wonderful boons to sufferers from disease, it has led to unwise and unnecessary operative procedures of various types from tooth extractions up to grave surgical procedures in the hands of the enthusiastic but injudicious tyro, but the passing of time and deeper investigations in selective types of infection will place it on its proper high pedestal and will be accounted as one of the masterpieces of modern medicine.

The medical world was not quite ripe to grasp the pioneer work in Endocrinology which was done by Charles E. DeSajous in the early 1900's. He wrote several years too early. Perhaps he stimulated interest that has brought forth results in internal secretions that can only be described as marvelous.

The influences of the thyroid on growth; the pituitary and acromegaly; the adrenal as stimulant and other recognized conditions due to the internal secretions and their disturbance are a study within themselves. Epinephrin, pituitary extract, thyroid extract, corpus luteum extract are our heritages from the band of physiological scientific researchers.

Perhaps the most notable achievement in the treatment of disease in the twentieth century, according to Seale Harris, is the discovery of insulin by Banting and his associates in the University of Toronto last year. Made from the Islands of Langerhans in the pancreas, it has the power of controlling the blood sugar. Its discovery was predicted by Osler and Joslin.

Wisely, the discoverer of insulin did not turn it over to the medical profession at random, also it might have been condemned, since it is a two-edged sword, the proper use and dosage of which has to be determined in the laboratory. Harris says that 40 per cent of patients sent to him for insulin treatment for diabetes did not need it, since sugar free urine and normal blood sugar was attained by diet alone.

Let me mention intarvin, another remedy for diabetes, an artificial fat based on theoretic chemistry and animal experimentation. It was developed by Prof. Ralph H. McKee of Columbia University Public Health Laboratories and introduced by Dr. Max Kahn, connected with the Medical School, Columbia University. Dr. Kahn reports its use in two dozen cases of diabetes in New York and Boston, with brilliant re-

sults. I consider public health prophylaxis as another monument that the medical man has erected that will stand as an example for others to emulate and will be applauded as the greatest of boons by generations to come.

Typhoid vaccine and toxin-antitoxin are typical. Let us hope that other diseases of epidemic nature may be as thoroughly mastered. Hookworm, malaria, tuberculosis need but to have the brilliant sunshine of universal understanding turned upon them to make them surrender to science.

Rockefeller Foundation hookworm campaign turned many a liability into an asset. Gorgas took Panama, a death hole, and made it a health resort. Problems there are in Public Health prophylaxis; they can be mastered. The world is looking to the medical profession to do it.

There are other problems for us to master. In addition to "carrying-on" in the investigation of focal infection and endocrinology, I think of the problem of anaphylaxis. With our modern armamentarium and the experiences of those gone before the medical profession is standing on the threshold of new discoveries. Finally in the fight against disease let us not lose sight of the patient. In our capacity of physicians we must remember that from the time of Adam men have a way of dying.

Teach them, "That death M. D. is the world's only family doctor, brusque, abrupt, imperative. The ignorant stand in awe of him, the strong jest with and about him, the old love him. He is good to the poor, gentle with children, gives no drugs, uses no surgery and has but one invariable prescription—perfect rest. He wastes no words, holds no consultations, makes no charges and makes no mistakes. Slothfulness irritates him, filth enrages him, nothing rattles him, nothing deceives. The grave is his hospital, where in ample time and infinite leisure the mother power of the earth croons over the shattered nerves and aching bones, and, at last, lulls them free of fret and pain."

With pride let it be said that nearly all

doctors are Christians, and, as a consequence, their subjects to whom they minister and give advice place them on a pedestal of confidence and respect enjoyed by few others. I can close with no more fitting sentiments than that expressed by Roberts in "An Ideal of Modern Medicine":

"Whenever and wherever my work, by day or night, in peace or war, on land or sea, in laboratory or office, home or hospital, class room or open field, may I be patient, poised and thorough; loyal to science and to man, unselfish in labor and pure in life. May I hold that science is better than gold and men than greed; that service is proportionate to preparation, and reward to labor.

"May I use drugs only when indicated, diagnose before I treat or operate, clean before I deliver, use my laboratory, preserve a sense of proportion, respect but not worship my own opinion, seek consultation often, be slow to judgment and cautious in word and deed, and mingle in minds and touch with medical men.

"In the laboratory, may I keep my records, and in clinical cases, my histories, and between them and me preserve the accuracy of truth.

"May I be strong with the weak, righteous with the wicked, wise with the foolish, honest with myself and kind to all men. May I avoid professional comparisons and sensitiveness, speak well of those of the household of medical faith, shun jealousy and eschew envy, follow progress, beware lest the demands of life chill my enthusiasm for study and knowledge; play some-

times and wander when I may. May I take injustice gracefully, disappointment easily, fight disease cheerfully, death hopefully; believe victory and defeat equally a part of the larger plan, and rise from both fresh for repeated conflicts. May I remember that I am heir to the same diseases as my patients, must meet the same death, pass with them beyond the River, and may I go with a smile."

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Stewart Roberts

DISCUSSION ON THE PAPER OF DR. A. J. MOONEY

DR. J. L. CAMPBELL, Atlanta: I greatly appreciate Dr. Mooney bringing the matter of medical history before the Association, but am sorry he did not deal more extensively with the history of medicine in Georgia. Georgia should be very proud of its work in medical history.

In this city in 1821 Anthony did the first work on lung surgery. He dissected a rib and removed a portion of gangrenous lung and the patient lived for many years. Also to Dr. Anthony is due much credit for forming the American Medical Association. As early as 1830 he wrote to the Universities of the United States and requested them to hold a meeting for the advancement of medical education. That was not acted upon until after Dr. Anthony's death in 1839. Shortly after that time this request was resurrected and the proposed meeting was held, and the American Medical Association is the outcome of that letter.

As we go on a little further we find that Dr. Dugas was also noted for the surgery of that time. Even prior to that, Dr. W. C. Daniel, of Savannah, had first used extension and counterextension in the treatment of fractures of the thigh, similar to Buck's extension, which is used at present. He reported this to his friend, Dr. Anthony, who used it in five cases and all recovered satisfactorily. Many years later Buck used this in some cases and reported it and got the credit for what we know today as Buck's extension.

Then, too, our Dr. Henry Campbell first discovered the reflexes of the cerebrospinal nervous system. These were published in some British Medical Journal and as a result he was given a membership in the Royal College in Dublin. Some French worker did the same thing a little later but as soon as he found that Dr. Campbell had already published it he withdrew his claim.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

THE AUGUSTA MEETING

In many respects the Seventy-Fifth Annual Meeting of the Association recently held in Augusta was one of the most remarkable in our history. There were 344 members registered, representing 78 constituent Societies. This was truly a representative meeting. Richmond County Society headed the list with a registration of 64, while Fulton came a close second with 63. Chatham came third with 19 and Bibb and Laurens tied for fourth place with 9 each. Registered in the House of Delegates, the business body of the Association, were 51 duly elected representatives of the constituent Societies. A more democratic organization would be hard to find. The twelve Congressional Districts were ably represented in the Council.

The Association was highly honored by the presence of ten of its ex-Presidents. The following were present Dr. W. F. Westmoreland, Atlanta; Dr. M. A. Clark, Macon; Dr. H. H. Martin, Savannah; Dr. T. D. Coleman, Augusta; Dr. T. J. McArthur,

Cordele; Dr. E. E. Murphey, Augusta; Dr. J. W. Palmer, Ailey; Dr. E. T. Coleman, Graymont; Dr. E. C. Thrash, Atlanta; Dr. J. M. Smith, Valdosta. Others of our ex-Presidents were unable to attend on account of providential hindrances. We honor ourselves in honoring these who have fought the good fight and have been true to the trust placed in them.

OUR NEW OFFICERS

The following officers were elected at the recent meeting in Augusta:

President—Dr. J. O. Elrod, Forsyth.

First Vice-President—Dr. W. A. Mulherin, Augusta.

Second Vice-President—Dr. B. H. Wagon, Atlanta.

Delegates to the American Medical Association—Dr. A. H. Bunce, Atlanta; Alternate, Dr. W. C. Lyle, Atlanta.

Councillors—

1st District—Dr. Chas. Usher, Savannah.

2nd District—Dr. C. K. Sharp, Arlington.

3rd District—Dr. V. O. Harvard, Arabi.

4th District—Dr. O. W. Roberts, Carrollton.

6th District (Made vacant by the election of Dr. J. O. Elrod, Forsyth, President)—Dr. M. M. Head, Zebulon.

Our President, Dr. Elrod, has served his District and the Association faithfully and well. His election is in every sense of the word a reward for service. He has been faithful to every trust. The welfare of the Medical Association of Georgia and its members has ever come first in thought and action with him. Industriousness has been his creed. "Let us be up and doing for the Association" has been his motto. We bespeak for President Elrod the loyal and enthusiastic cooperation of every member of the Association. May this be the greatest year in our long and eventful history!

CHANGES IN CONSTITUTION AND BY-LAWS

There were several important changes in our Constitution and By-Laws adopted at the Augusta meeting. Among these are:

1. The Council has been made the acting body of the Association in the interim between annual meetings.

2. The House of Delegates will meet on the day preceding the beginning of each annual meeting.

3. The meeting date has been changed to begin on the second Wednesday in May of each year instead of the first Wednesday as heretofore.

4. On locating or on change of location a member may place his card in the local paper for a period not to exceed one month. He may state whether or not his practice will be limited, but no member may use the word "specialist" in any connection. This applies to newspapers, telephone directories, cards, etc.

An amendment was introduced to permit the nomination of Councillors by their respective District Societies. This will be voted on next year.

For complete information in reference to all business transacted please read the minutes of the House of Delegates published in this issue of the Journal.

WOMAN'S AUXILIARY

On May 8th, 1924, during the convocation of the Association held in Augusta, the Woman's Auxiliary was organized and officially recognized by the Association. Its object is to extend the aims of the medical profession through the wives of the doctors to the various woman's organizations which look to the advancement in health and education; to assist in entertainment at State, District and County Society meetings; to promote acquaintanceship among doctor's families, that local unity and harmony may be increased.

It is a most commendable organization and it is to be hoped all of the wives whose hus-

bands are members in good standing in the Medical Association of Georgia, as none other are eligible to the Auxiliary, will co-operate to make it a helpful and successful organization.

A copy of the proposed Constitution and By-Laws will be sent to each member of the Auxiliary in a short time.

The officers elected for the ensuing year are:

President—Mrs. James N. Brawner, Atlanta.

First Vice-President—Mrs. G. T. Bernard, Augusta.

Second Vice-President—Mrs. Paul L. Holiday, Athens.

Secretary—Mrs. Allen H. Bunce, Atlanta.

Committee on Constitution and By-Laws—Mrs. C. W. Roberts, Atlanta, Chairman; Mrs. C. W. Crane, Augusta; Mrs. G. Groover, Savannah; Mrs. D. W. Freeman, Valdosta; Mrs. Hugh N. Page, Augusta; Mrs. Marion Benson, Atlanta, and Mrs. O. H. Matthews, Atlanta.

PROCEEDINGS OF THE 75TH ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF GEORGIA

Augusta, May 7, 8, 9, 1924

FIRST GENERAL MEETING

Wednesday, May 7, 1924

The Association was called to order at 10 A. M. by the President, Dr. J. W. Daniel, Savannah.

Invocation

REV. JOSEPH R. SEVIER, Pastor of the First Presbyterian Church, Augusta: Almighty God, Thou who has created the world, and all that is in it, Thou who each day dost perform a new creation, and give man a new chance to start all over, we thank Thee for this glorious morning, and we come to Thee in its freshness to dedicate ourselves to Thee. May all that we think and plan and do today be in accordance with Thy all-wise plan.

We thank Thee for giving man a love

for learning. We thank Thee that he has sought out and set in order many great facts concerning life. We thank Thee for the progress of the ages upon which we stand as we reach out to know the mysteries which lie beyond. We thank Thee that there is yet more to discover than is now known. That there is no limit to the wonders which God will reveal to the heart and mind of man when he conforms to the laws and rules which govern them.

We thank Thee for the advance which has been made in the art of healing. We thank Thee that Thy Son, our Lord and Saviour Jesus Christ, was called the Great Physician; that He went about healing all their diseases. And we thank Thee for the spirit of the Master which is in the heart of so many physicians today, men who are spending themselves for the welfare and the happiness of others.

We pray that Thou wilt consecrate to Thy service all these men to whom many talents have been committed. Grant that each one may know that God has an all-wise plan for their lives, the very best plan that Almighty God could devise, and may they seek that plan and follow it. We pray for Thy protecting love to be around the loved ones at home, that no harm may befall them while their dear ones are away. Guard and keep the patients who are left behind and grant that they be benefitted by what these, Thy servants, may learn while here.

May Thy Holy Spirit rule over these deliberations, giving to all the spirit of moderation and love. May Thy kingdom come and Thy will be done, is our prayer, and we ask it all with the forgiveness of all our sins, through the riches of Thy grace, through Jesus Christ our Lord. Amen.

Address of Welcome

DR. T. D. COLEMAN, President, Richmond County Medical Society: Mr. President, Ladies and Gentlemen; Members of the Association: Nestling between the sand hills of Georgia and South Carolina

and bathed by the waters of the tawny Savannah, is the City of Augusta. She was founded in 1736 and named for Princess Augusta, favorite daughter of the then Prince of Wales. She is celebrated commercially for her immense cotton mills and for the fact that she is the second largest inland cotton market in the world. Perhaps what gives her more prominence over the country is the fact of her wonderful climate. For this reason she is known over the length and breadth of this land and visitors pour in here through the winter season. In point of climate she is exactly parallel to San Antonio and it is possible during winter months to live out of doors most of the time.

She is famous for the fact that she has since 1828 been a Mecca for medical students and many of you who are within sound of my voice can trace your early training to our Medical College of Georgia located here. It is related that the Roman matron Cornelia when asked to display her jewels pointed to her sons, and I think we cannot do better on this occasion than point to some of our illustrious sons.

When I come to the matter of hospitality, it is boundless. I feel it to be very much as was stated by an American at a banquet in Paris. The toastmaster had called on an Englishman to toast England and he toasted her as "a land on which the sun never sets." The American got up and said, "Mr. Toastmaster, I come from a country bounded on the north by the Tropic of Cancer, on the east by the rising sun, on the south by the Tropic of Capricorn, and on the west by the Day of Judgment."

On behalf of the members of the Richmond County Medical Society it gives me great pleasure to welcome you to our

homes, to our hearts and to our friends. As the cannibal said after swallowing a missionary, "We are glad to have you in our midst." (Laughter and applause.)

THE PRESIDENT: If there are any more ex-presidents in the audience, please come forward.

Dr. J. G. Dean, Dr. E. T. Coleman, Dr. W. F. Westmoreland, Dr. J. W. Palmer, Dr. E. C. Thrash, Dr. M. A. Clark, Dr. J. M. Smith, Dr. T. D. Coleman, and Dr. T. J. McArthur represented the ex-presidents who were present at the meeting.

Dr. J. W. Daniel responded to Dr. Coleman's address of welcome as follows:

Dr. Coleman, Members of the Medical Association: It is indeed a pleasure to be with you today. Having been a citizen of Augusta I understand what a genuine welcome to Augusta means. While Dr. Coleman did not say anything about the keys of the city being ours, and the protection of the police (laughter) that is understood, because they tolerated me for twenty-six years and never arrested me so they must be very tolerant indeed.

Dr. Coleman did not tell you of the real things Augusta has done in the line of medicine. He spoke about the military heroes Augusta has produced. The military hero gets all the praise, all the encomiums and all the monuments. The only medical hero I know of who ever got a monument was Marion Sims, but the Government did recognize Dr. Walter Reed and named a hospital after him. If there are any others I have not heard of them, although Georgia did erect a monument to Battey at Rome. Much to our shame we have not done our duty in this way. Crawford W. Long is another great Georgian, and I wish to call your attention to this matter and urge that you give Dr. Long some recognition and have his statue put in the Hall of Fame at Washington.

I want to tell you a little about what Augusta has done. One of the oldest medical colleges in the United States is in the City of Augusta. In the old college grounds

you will see a little iron railing and in that enclosure are the remains of Dr. Milton Anthony, the founder of one of the first medical colleges in this country. Very few have ever heard of him but he was a leader in his day. He has been forgotten. You have all heard of Lister and his wonderful antiseptic surgery. When I was a student in the College here antiseptic surgery was being practiced by Dr. Dugas. Again, there was Campbell whose name will go down in medical literature. With those men were numerous others as the senior Coleman, Dugas, Geddings, Doughty, Ford and others and men of that character whom some of you may remember. They were pioneers and were teachers in the old medical school of Augusta. So when you walk these streets today just remember that you are on hallowed ground. The leaders in medicine were in this community. Due to the lack of what we are suffering with today, the lack of ability to make ourselves known and shown to the world, our thunder is being stolen and others are getting credit for things that we men of the south are doing every day.

With these few remarks about the medical history of Augusta I wish to assure you, as a former citizen, that a sincere welcome here is something to be much appreciated. (Applause.)

The Chairman introduced the Mayor of Augusta, Mr. Smith, who delivered the following address of welcome on behalf of the City:

Mr. President and Gentlemen of the Convention: I think it is needless for me to extend to you any further words of welcome. Your worthy President, Dr. Daniel, has explained to you about the hospitable city of the people of Augusta and how our city relates to your work. Augusta, of course, is delighted to welcome you again on your 75th annual convention. We are deeply interested and concerned in that we have been so closely associated with you in the years that are gone, and also with Augusta as the head of the Medical Department of the University of Georgia.

Augusta is proud of the record that the Medical Department of the University of Georgia has made. It is proud of the doctors who cover the red hills of Georgia. We of Augusta look upon your organization as one of the most important organizations of our country today. You are leading lights, and I might say missionaries. You are leading us on and your influence is so much for the development commercially and otherwise of our state and our nation.

I will say a word to you of the Augusta of today. Dr. Daniel has so ably described Augusta to you as it was in years gone by when he as a boy and had as his instructor our own Dr. Coleman. The Augusta of today is one of the leading cities of this section. Our people are most hospitable. They are always delighted to welcome friends to our midst, and commercially our industries are forging ahead today out of the recent period of depression and are helping to reestablish confidence in this section of the country and of the nation. We have progressed wonderfully in the last two years and we want you to visit the present points of interest so that we may be an inspiration to you to carry back to your people that they may feel that we have accomplished something.

Having you here we are sure that we can gain a great deal from you. Our city stands with open hands and arms, our homes and our hearts are open to you. We are glad to have you in our midst again and wish you every success at your convention here. I thank you. (Prolonged applause.)

Report of the Committee on Scientific Work

DR. B. H. MINCHEW, Chairman: Our report is your program. The preamble of the program will appear in the May issue of the Journal so you will be indulging our report throughout the meeting.

In this connection I wish to say that we had more papers offered at our meeting in March than we could accept for the pro-

gram. We had about eighty papers offered but could only accept forty-two, which we selected from those offered. I mention this in order to say that the reading of a paper now before the Medical Association of Georgia has become a premium. We did not select the papers that appear on the program because we thought they were better than the others, but simply with the idea of distribution throughout the State. We want the whole State to become interested in the Association and we feel that the best way to attain this is to have papers from all over the State. I trust the fact that we had twice as many papers as appear in the program will interest you to this point—that when you prepare a paper it will be concise, that it will say what you wish to say in an interesting way, and in that way the Program Committee will soon learn the best papers to offer to the Association each year. The Program Committee will select from throughout the State without any idea of offending anyone. We tried to have the program arranged with as many papers from one part as another, and we feel that we have brought you an interest that will be distributed in the same way. We thank you for the courtesy.

THE PRESIDENT: You have the program before you, gentlemen, and have heard the remarks of Dr. Minchew. What is your pleasure?

DR. BOLAND: I move that the program be adopted.

Seconded and carried.

Dr. H. N. Page, Chairman of the Committee on Arrangements, announced the plans that had been made for the entertainment of the members of the Association and for the ladies and urged a large attendance at all the functions.

The President read a telegram which had been received from the Southern Medical Association wishing the Medical Association of Georgia a successful meeting, and then called for the first paper on the program.

1. Dr. A. J. Mooney, Statesboro, read a paper entitled "Medicine: Past and Present," which was discussed by Dr. J. L. Campbell, Atlanta, and in closing by the essayist.

The President read a telegram which had been received by Dr. Henry C. Wheelchel and requested that the Secretary be authorized to send a telegram from the Association expressing its sympathy because of his illness.

The following papers were presented as a Symposium on Abdominal Surgery:

2. Dr. C. W. Roberts, Atlanta, "Preventive Abdominal Surgery."

3. Dr. B. T. Wise, Plains, "Surgery of the Gall-Bladder."

At this point the President requested Vice-President Mooney to take the Chair.

4. Dr. W. E. Person, Atlanta, "Tuberculosis of the Pylorus with Obstruction, with Report of a Case."

5. Dr. C. D. Ward, Augusta, "Carcinoma of the Pancreas in the Third and Eighth Decades of Life."

Dr. Daniel then resumed the Chair.

6. Dr. George A. Traylor, Augusta, "Cancer of the Small Intestines."

7. Dr. R. M. Harbin, Rome, "Postoperative Dehydration."

These papers were discussed by Drs. H. R. Slack, LaGrange; W. F. Westmoreland, Atlanta; A. C. Wade, Augusta; Charles Usher, Savannah; G. L. Echols, Milledgeville; W. R. Dancy, Savannah; J. L. Campbell, Atlanta; C. H. Richardson, Jr., Macon; W. A. Selman, Atlanta; H. H. McGee, Savannah; L. W. Grove, Atlanta; H. Grady Carter, Atlanta, and in closing by Dr. C. W. Roberts, Atlanta.

On motion, the Association adjourned at 1:40 to reconvene at 2:30 P. M.

First Day—Afternoon Session

The Association reconvened at 2:30 P. M. and was called to order by Vice-President Dr. A. J. Mooney, Statesboro.

Dr. E. T. Coleman, Graymont, presented the following resolution:

WHEREAS, One of the most honored and beloved members of this Association, Dr. George R. White, of the City of Savannah, by reason of ill health was not only deprived of meeting with this body in his home city one year ago, but has been deprived of residence in his adopted state for the past eighteen months, and

WHEREAS, He has returned to his adopted City and State restored to health, be it

RESOLVED, That the Secretary of this Association be authorized to wire him our congratulations and insist that he visit us during this session of the Association.

Upon motion duly seconded and carried this resolution was adopted.

Dr. Bunce, Secretary-Treasurer, presented a brief summary of the proceedings of the House of Delegates.

(For particulars, see minutes of the House of Delegates.)

Dr. E. C. Thrash moved the adoption of the report.

Seconded and carried.

The following papers were then presented as a Symposium on Diseases of Children:

8. Dr. W. A. Mulherin, Augusta, "Acidified Milk with Karo Syrup as an Artificial Feeding for Babies."

9. Dr. W. L. Funkhouser, Atlanta, "Modified Breast Milk."

At this point Dr. Daniel arrived and took the Chair.

10. Dr. R. L. Miller, Waynesboro, "Some Problems of the Slowly Convalescent or Half-Sick Child."

11. Dr. A. J. Waring, Savannah, "The Thymus Gland in Infancy and Childhood."

12. Dr. W. N. Adkins and Dr. W. T. Freeman, Atlanta, "Status Thymicus in Children."

13. Dr. Cleveland Thompson, Millen, "A Study in Tetany."

These papers were discussed by Drs. Theodore Toepel, Atlanta; W. A. Mulherin,

Augusta; A. J. Waring, Savannah; W. T. Freeman, Atlanta; Cleveland Thompson, Millen; Joseph Yampolsky, Atlanta; N. M. Moore, Augusta; George L. Echols, Milledgeville; J. M. Anderson, Columbus; R. L. Miller, Waynesboro; W. N. Adkins, Atlanta; W. L. Funkhouser, Atlanta, and in closing by Drs. Mulkerin, Funkhouser, Miller, Waring, Adkins and Thompson.

14. Dr. V. P. Sydenstricker, Augusta, read a paper entitled "Intestinal Protozoa," which was discussed by Dr. Theodore Toepel.

On motion, the Association adjourned at 5:15 to reconvene at 7:30 P. M.

First Day—Evening Session

The Association reconvened at 7:30 P. M. and was called to order by the President, Dr. J. W. Daniel, Savannah.

15. Dr. Lawson Thornton, Atlanta, presented a paper on "The Treatment of Bone Tuberculosis." (Lantern slides.)

16. Dr. Arch Elkin, Atlanta, addressed the Association on "A Resume of Twelve Months Work of the Good Samaritan Clinic for Diseases of the Ductless Glands, Especially Reporting Idiocy and Epilepsy as Influenced by Glandular Treatment." (Lantern slides.)

At this point Vice-President Mooney took the Chair.

17. Dr. T. C. Davison, Atlanta, presented a paper on "Surgery of the Thyroid Gland Under Local Anesthesia." (Lantern slides.)

18. Dr. L. W. Grove, Atlanta, presented a paper entitled "Adhesions of the Ascending Colon with Obstructive Symptoms; So-Called Chronic Appendicitis." (Lantern slides.)

19. Dr. E. G. Ballenger, Dr. O. F. Elder and Dr. W. F. Lake, Atlanta, presented a paper on "Cystograms with Air Injection to Demonstrate Intravesical Hypertrophied Prostate." (Lantern slides.)

These papers were discussed by Drs. W. F. Lake, Atlanta; Willis F. Westmoreland, Atlanta; R. M. Harbin, Rome; J. S. Derr, Atlanta; J. L. Campbell, Atlanta; George

C. Mizell, Atlanta; Charles E. Waits, Atlanta; and in closing by Drs. Elkin, Davison and Grove.

On motion, the Association adjourned at 10:15 P. M. to reconvene at 9 A. M. Thursday.

Thursday, May 8, 1924

Second Day—Morning Session

The Association met at 9:15 A. M. and was called to order by the President, Dr. J. W. Daniel, Savannah, who announced that according to an arrangement made by the Program Committee the paper of Dr. Thomas D. Coleman, Augusta, would be read at this time instead of at the afternoon session.

20. Dr. Thomas D. Coleman, Augusta, presented a paper entitled "Concerning Some Phases of Cardiac Insufficiency."

The President requested Dr. E. T. Coleman, Graymont, to take the Chair so that he might discuss this paper.

The paper was further discussed by Dr. R. T. Dorsey, Atlanta, and in closing by the essayist.

21. Dr. M. C. Pruitt, Atlanta, presented a paper on "The Surgical Problems in Cancer of the Breast."

22. Dr. T. Byron King, Sandersville, presented a paper entitled "Treatment of Malignancies."

These two papers were discussed by Drs. Marion T. Benson, Atlanta; Cleveland Thompson, Millen; Byron Daniel, Cordele; J. L. Campbell, Atlanta; T. C. Davison, Atlanta; J. S. Derr, Atlanta; C. E. Wall, Thomasville; and in closing by Drs. Pruitt and King.

23. Dr. J. N. Brawner, Atlanta, read a paper on "A Study of the Etiological Factors in Two Hundred Mental Breakdowns."

24. Dr. E. Bates Block, Atlanta, read a paper on "The Relation of Adherent Prepuce to Epilepsy."

The President requested Vice-President Mooney to take the Chair.

These two papers were then discussed together by Drs. Charles E. Dowman, Atlanta; L. M. Gaines, Atlanta; George L. Echols, Milledgeville; R. T. Dorsey, Atlanta; J. P. Bowdoin, Atlanta, and in closing by Drs. Brawner and Block.

THE CHAIRMAN: It is now 11:50 and we still have two papers on the program. Our By-Laws demand that the Presidential Address shall be delivered exactly at noon. Two courses are open, one to take a recess until the hour of twelve, the second by unanimous consent to waive this provision and proceed with the program.

On motion, duly seconded and carried, a recess of ten minutes was decided upon.

DR. BUNCE: Just a moment, gentlemen. I have a few announcements. In view of the change in the Constitution and By-Laws the election of officers will take place at 12 o'clock on Friday, instead of at 3:00 as has been our custom heretofore.

The Kiwanis Club has invited all visiting Kiwanians to have luncheon with the local members at one o'clock in the dining room of this hotel.

The class of 1900 of the University of Georgia will meet at luncheon immediately after the close of this session.

There will be a meeting of the Council immediately after the close of the afternoon session.

The Commanding Officer of the United States Veterans Hospital invites us all to visit the Glenwood Hospital and see the work that is being carried on there. A most cordial invitation has been extended us to come out and see him.

The Association was called to order at 12 noon by Vice-President Mooney and Dr. J. W. Daniel, Savannah, delivered his Presidential Address.

In accordance with established custom the Address was not thrown open to discussion.

DR. E. BATES BLOCK: I wish to offer a motion, that this organization recommend

to the State Legislature that a sanitary tax of one dollar (\$1.00) be levied on each tax-payer, the amount to be used by the Health Department in their work. Seconded.

DR. M. A. CLARK: The House of Delegates will meet tomorrow morning. That is the business body of the Association and this matter will be taken up by them tomorrow morning.

THE CHAIRMAN: Dr. Clark's point is well taken. The House of Delegates will consider this matter at the next meeting, tomorrow morning. We will now continue with the program.

25. Dr. C. H. Richardson, Jr., Macon, presented a paper entitled "Statewide Health Association."

At this point President Daniel took the Chair and said: Gentlemen: Just at this point, with your approval, which I am sure you will give as we are asking the support of the lay organizations, I am going to introduce Mrs. C. A. Ver Nooy, of Athens, who represents the Parent-Teachers Association. (Applause.)

MRS. VER NOOY: Mr. President, Members of the Association: As I listened to your President's excellent address, so ably seconded by Dr. Richardson, I caught a vision of the future of Georgia. It is based upon M. Morel and his work at Villiers le Duc, in France. When he became Mayor of that village he realized that he could not do everything he wished for the children, so he reinforced himself by studying medicine and then received every child in the village himself, corrected the prenatal conditions of the child and the condition of the mother, with the result that for a period of ten years no mother or child was lost by death, with the exception of one stillbirth. This was all done by one man. What might we not do in Georgia with the work of all the men? We could in one stop go above all the other states and other countries. Since the child health demonstration has

come to Athens, by cooperating with the Statewide Program and putting doctors in all of our offices, from Governor down, I see no reason why we should not reach the millennium in this five-year demonstration.

I am sure no one knows as well as you doctors that the preschool age is most important, and that most of the problems are preschool problems. The workers from the Children's Bureau are emphasizing the fact that the first three years of the child's life are the most important. The child learns twice as much, it is said, in the first three years as in any other period of life. It is during this period that its habits, its health and morals are largely determined. So I am asking that you help us in our request for a State Legislative Program that will give us whatever is necessary, and for statewide kindergartens, because this is the solution of the health and other developments of the child. We do not want the old kindergartens, as we know them, but one that is a health center for the neighborhood, really a training school for parents and potential parents, a training school for nursery maids and for girls that will prepare them in the safest way possible for bringing up their families with health as the foundation. We ask your cooperation in this legislative program. You have just asked ours or it would be presumptuous for us to ask yours, but let us get together.

I have been talking with Dr. Ballard and Dr. Bowdoin about legislation that will cover all of our needs. You know this is based upon the health of the child, primarily. We cannot have proper development unless such development is based upon health and we want your cooperation in order to have this foundation and to have the kindergarten. If it is the community center it will cover all our needs. We will ultimately be given these kindergartens and all that we wish is your cooperation for statewide health for children. If you will get behind us and help us to rescue Georgia

from politics, put some of our noble men in office, and help us make good this health demonstration, we can accomplish the impossible in a very short time, and we are ready to cooperate with you to the fullest possible degree. (Applause.)

Dr. Richardson's paper was then discussed by Drs. J. W. Simmons, Brunswick, and Theodore Toepel, Atlanta.

26. Dr. J. P. Bowdoin, Atlanta, read a paper entitled "State Board of Health Program."

Discussed by Drs. Joseph Yampolsky, Atlanta; C. H. Richardson, Jr., Macon; J. W. Daniel (after requesting Dr. J. W. Simmons to take the Chair), Savannah; Mrs. C. A. Ver Nooy, Athens; Dr. Frank K. Boland, Atlanta.

On motion, the Association adjourned at 1:40 to reconvene at 2:30 P. M.

Second Day—Afternoon Session

The Association reconvened at 3:00 P. M. and was called to order by Vice-President A. J. Mooney, Statesboro.

27. Dr. Elton S. Osborne, Savannah, presented a paper entitled "Tips for the Cock-Sure Specialist." (No discussion.)

28. Dr. A. G. Fort, Atlanta, presented a paper on "Further Observations on Cases and Treatment of Vernal Conjunctivitis."

Discussed by Drs. G. H. Lang, Savannah; J. L. Hiers, Savannah, and in closing by the essayist.

29. Dr. E. D. Shanks, Atlanta, presented a paper on "Simple Methods for the Differentiation of Cardiac Arrhythmia."

Discussed by Drs. J. M. Anderson, Columbus; E. C. Thrash, Atlanta; R. L. Miller, Waynesboro; Cleveland Thompson, Millen, and in closing by the essayist.

30. Dr. Hal M. Davison, Atlanta, presented a paper entitled "The Diagnosis and Treatment of Atypical Forms of Hay Fever."

Discussed by Dr. Arthur C. Wade, Augusta, and in closing by the essayist.

31. Dr. L. A. Baker, Tifton, presented a

paper entitled "Acute Pancreatitis Following Gestation, With Report of a Case."

Discussed by Drs. Frank K. Boland, Atlanta; Charles Usher, Savannah, and in closing by the essayist.

On motion, the Association adjourned at 5:15 P. M. to reconvene at 9 A. M. Friday.

A barbecue was held on Thursday evening at Dean's Bridge Pond Resort, but no program was attempted.

Friday, May 9, 1924

Third Day—Morning Session

The Association met at 9 A. M. and was called to order by Vice-President Dr. A. J. Mooney, Statesboro.

32. Dr. Kenneth McCullough, Waycross, presented a paper on "Industrial Hernia."

The Chairman read a telegram which had been received from Dr. Sydney R. Miller, of Baltimore, expressing his sincere regret that he was unable to be present to deliver the Address on Medicine because of the serious illness of his mother.

33. Dr. J. D. Gray, Augusta, presented a paper on "Diabetes."

Discussed by Dr. J. W. Daniel, Savannah; E. C. Thrash, Atlanta; Louis F. Lanier, Rocky Ford; J. M. Anderson, Columbus, and in closing by the essayist.

President Daniel then took the Chair.

Dr. Coleman moved that the report of the House of Delegates be received at this time.

Seconded and carried.

DR. BUNCE: The complete reports of the proceedings of the House of Delegates will be published in the Journal just as soon as possible. On Wednesday afternoon we had complete reports from the following committees:

Constitution and By-Laws—They added one section to that previously reported, Chapter VIII, rules and ethics are to be substituted for miscellaneous. They added Section 3, to the effect that any member of this Association, locating in a new place may place his professional card, giving his address and telephone number and stating

whether his practice will be limited to any special branch, for a period of one month, but the use of the word "specialist" in any connection shall be considered unethical.

Under Section 5, order of papers, is as follows: The order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until completed, provided these papers shall not encroach upon the papers of any subsequent meetings.

The Committee on Medical Defense made a report showing that we have now 23 suits. They ask for an appropriation of \$3,500.00, which was approved.

One change in the Constitution and By-Laws was introduced, providing that the Councilors shall be nominated by their respective Councilor Districts at the District meetings where such District Societies exist, and providing that the nominees be present at the annual meeting of the Association.

At its morning session a resolution from the attorneys of the Association in reference to the renewal of the charter of the Association was adopted.

A resolution in regard to a sanitary tax was referred to the Committee on Public Policy and Legislation.

A resolution to recognize the Woman's Auxiliary as a part of the Association, allow them to sit in the scientific sessions and wear a special badge was adopted.

A motion to accept the invitation of Atlanta to meet there in 1925 was carried.

A motion to appoint a Committee on National Defense to be composed of twelve members, one from each Congressional District, was carried.

A vote of thanks to the Richmond County National Society and various organizations which assisted in our entertainment was given and Dr. Simmons was appointed to draw up an appropriate resolution to be given to the press.

Letters from the City of Brunswick, signed by the Mayor and the Board of Trade

were read. As information, I will say that these letters request us to meet in Brunswick in 1926.

Q. Who are the attorneys and what is the salary?

DR. BUNCE: Our attorneys are Bryan and Middlebrooks. They receive a retainer of \$1,000.00 a year and no extra compensation whatever except for actual traveling expenses and transcribing of testimony when cases are tried. That includes their entire fee for the year. Usually the member sued wants a local attorney and we must pay the local attorney in addition. The expense this year brings it up to approximately \$2,600.00.

The President has appointed Dr. J. W. Simmons as Councilor for the Eleventh District to succeed Dr. J. C. Wilson.

Dr. Toepel moved that the report of the House of Delegates be adopted.

Seconded by Dr. Coleman and carried.

DR. FRANCIS MARTIN, Shellman: I wish to ask whether you are taking any recognition of this article in Hygeia in regard to Dr. Crawford W. Long.

DR. BUNCE: For the information of the Association I would like to have the President ask Dr. M. A. Clark, our Parliamentarian, to explain this definitely.

THE PRESIDENT: Dr. Clark, we shall be very glad to hear from you.

DR. CLARK: A resolution was passed by the House of Delegates this morning memorializing the American Medical Association in reference to the real discoverer of anesthesia. However, if you will read this article you will find that it is not as bad as it seems. If you remember, some years ago, J. M. Sims thrashed this out with the result that the men in Boston acknowledged that Crawford W. Long was the first to use ether as an anesthetic, but that Dr. William G. Morton, of Boston, was the first to make a public demonstration of it, and by reason of that some states have claimed that he should have the recognition. This article speaks of Dr. Long's claims. If you re-

member, France has erected a memorial to Dr. Crawford W. Long as the discoverer of anesthesia and he is recognized by the world at large. According to this resolution the matter will be brought before the American Medical Association. A few years ago our former Secretary, Dr. Jones, got together all these data regarding ether anesthesia in surgery, and some time ago I sent the copy to the Editor and suggested that it might be well to publish this in the Journal for your information. In taking this up all these matters will be considered and Dr. Long's claim for priority will be sustained.

DR. BOLAND: Mr. President, I wish to say, at this point, that through the efforts of the Crawford W. Long Memorial Association and through the generosity of this body we have now all but \$7,500.00 with which to erect his statue in the Hall of Fame in Washington. (Applause.) We raised \$600.00 in Savannah last year and have collected about \$150.00 at this session, and I think without doubt within eighteen months his statute will stand in the Hall of Fame. (Prolonged applause.)

THE PRESIDENT: I do not wish to impose upon you for I know the boll weevil has gotten your cotton and almost your goat, but if you have a dollar to spare please don't forget that Dr. Boland needs it to help put this statue in the Hall of Fame. The young lady at the desk has blank checks. Give us something and let your name go down as a contributor.

DR. BENNETT: I understand this fund is to put the statute in the Hall of Fame, but I claim this article should be condemned. My understanding is that it will be thrashed out with the American Medical Association.

DR. MARTIN: The intelligent doctors throughout the world all know who discovered ether anaesthesia but the layman does not, and they got their information through this publication and this article should be refuted.

THE PRESIDENT: All in favor of the adoption of the report of the Secretary as a whole signify by saying aye. Carried.

DR. BUNCE: I have just received a telegram from Dr. Stewart Roberts stating that he has had two wrecks, but is now in the third automobile and will get here in time to read his paper. (Applause.)

THE PRESIDENT: I think it would be very courteous on the part of this Association to extend our sympathy to our invited guest, Dr. Sydney R. Miller, and hope for the speedy recovery of his mother, and I will request the Secretary to attend to this. We will now continue the program.

34. Dr. W. H. Myers, Savannah, presented a paper entitled "Review of the Subject of Pelvic Inflammation."

Discussed by Drs. Marion T. Benson, Atlanta; B. H. Wagnon, Atlanta; H. H. McGee, Savannah; E. A. Wilcox, Augusta; C. H. Richardson, Jr., Macon, and in closing by the essayist.

The following papers were read as a Symposium on Urology:

35. Dr. S. A. Kirkland, Atlanta, "Advances in Recognition and Treatment of Bladder Inflammatory Diseases."

36. Dr. C. H. Watt, Thomasville, "The Neglected Prostate."

37. Dr. C. K. Wall, Thomasville, "Ureteral Calculus; Bilateral, Time Check on at Least one Stone."

These papers were discussed by Drs. Henry G. Estes, Atlanta; Harry Y. Righton, Savannah; Julian K. Quattlebaum, Savannah; Rufus C. Franklin, Swainsboro; Roy J. Holmes, Wadley; and in closing by Drs. Wall and Watt.

A short recess was declared following which the Association was called to order by Vice-President Mooney at 12 M.

Dr. B. H. Minchew, Chairman of the Committee on Scientific Work, then presented the Badge of Service to the retiring President, Dr. John W. Daniel.

DR. MINCHEW: Mr. President and Gentlemen of the Medical Association of

Georgia: It is my happy privilege to present this Badge of Service to our retiring President. This is a custom at each session and is a mark of appreciation on our part of the man who has led the destinies of the organization during the preceding year. I think I sense that on this occasion this tribute is doubly deserved and most happily given. The life of the physician is that of sacrifice in every sphere of life. As he goes about his private practice he is rendering service. As he enters into civic affairs of his community he brings a training for service which cannot be approached by anyone and when he leads an organization of physicians he renders a service that no diplomat with all tact and trained political judgment can excell. Was there ever a time when service meant so much? Was there ever a time when any man or group of men who can render special service was more in demand? A man out of our own group has been called by the League of Nations to study health conditions in Europe and assist those unfortunate nations in correcting the conditions that confront them. I refer with a great deal of pride to Dr. Abercrombie.

My friends, the conditions that exist on the other side are not unlike our own in many particulars. Many of our people stand aghast at the conditions that face them out of the chaos of war. Our business men are wondering why we cannot move back to prosperity. Our people are wondering why we cannot overcome the industrial depression that faces us. The wise men of our profession are showing them the reason. The business men are being told that the reasons are not dependent upon the products, but upon the health of the people who work for them. What greater service can we render as people or as individuals than to carry the gospel of health to everybody? What greater service can be given than to say to the people we meet that many of the diseases that increase infant mortality and take away the usefulness of society, when

these individuals have, their greatest productive power, are preventable? There is no greater service than this.

Linked closely with this is the thing we learned during the war. The draft brought millions of young men to the examining boards for examination and by millions they were turned away because of physical and mental disabilities. It occurs to me that we should learn a lesson from this very thing. We know these men who were unable to meet conditions in the time of war are equally unable to meet the conditions of civil life and become good citizens. We found the men unequal to the strain and demands of war and in times of peace we can find the same lack of preparation and fitness among the young women of the country. Is it not a most excellent opportunity to preach the gospel of health to young men and women in an effort to prevent future ills and make them better citizens?

Closely connected is that great group of young men so recently brought back from overseas. They fought for an ideal in the declaration of war, that was the most sublime of any that the man who gave his life in the service of mankind, who tried to establish peace for all men, could conceive. What greater service could be rendered than to assist in this movement that has been in force for several years? What greater service can we render than to try to establish these men in the service of our country? I say the greatest service is to heal his body and mind and let him find his own place.

Mr. President, in this feeble preamble I have tried to state some of the things that imply service. We recognize you as a leader in them all. We know your splendid work, your work in the civic affairs of your community. We know some of the obstacles you have tried to overcome. We know your administration has been one of service and we are not unmindful of your efforts to assist in the industrial crisis that

confronts us. We know of the sacrifices you made during the World Conflict, when you offered your services and shared with the men of all nations the horrors of that period. We know you as a leader. In every line of your address there was a plea and a desire for service to all mankind. You suggested plans by which the lives of many children in South Georgia might be saved. You suggested many methods by which children of North Georgia might be saved, ways in which the business men might help, and in the name of the Medical Association of Georgia I present to you the Badge of Service. In the words of that eloquent statesman, Benjamin Harvey Hill,

“Who saves his Country saves all things
And all things saved shall bless him.
Who lets his Country die, dies himself ignobly,
And all things dying curse him.”

THE PRESIDENT: Dr. Minchew and Gentlemen: I thank you very much indeed for the many kind things Dr. Minchew has said about me and I hope I really deserve at least some of them. I wish to assure you that it has been a real pleasure to be your President during the past year, but I wish to again call your attention to the fact that it was through the misfortune of a much better man than I that I happen to be in this position. I wish to say that he has returned to us and will occupy his old place in Savannah again. Had it not been for the misfortune attending Dr. White I am quite sure I never would have been your President. I have not been a very good member, I had not attended the meetings for seven or eight years, and have always felt that I was not deserving of the compliment you bestowed upon me, but when, having accepted that gift, I became your President I did the best I could with all the strength there was in me. I met with some obstacles at first, but after some explanations they were all overcome and everything went along happily. I am still meet-

ing with obstacles, not from the medical profession, but from the politicians of the state. I wish to say that the greatest menace to the country today is our politicians. We have evidence of that in Washington—the men we entrusted with our highest gifts are betraying our trust and they are doing it in our cities, in our counties and in our states. It is a deplorable state of affairs and I cannot help feeling that the medical man is the man to lead the country to salvation. In my slight experience in politics in Savannah, I drew forth this remark from the leader of the machine: "The doctor is a damned fool and has no business in politics because he never knows when to keep his mouth shut." (Laughter.)

Enough of politics, enough of my troubles, but I wish to assure you that in relinquishing this office I do not relinquish my loyalty to the State Association. I was not a good member but I have been converted and propose to be one hundred per cent after this.

I will always wear this emblem with a great deal of pleasure and pride. I dislike to dispose of the one I am now wearing, but will find another place for it and this Badge shall come first.

I wish to thank you again and hope to be with you next year and I hope the next President will do better than I have done. If there is anything I can do through the Statewide Health Association, or any organization with which I am connected, we will aid him in every way. (Applause.)

Dr. Daniel then took the Chair and requested the ex-presidents in the audience to step forward and act as Tellers, and the election of officers was proceeded with.

Dr. J. O. Elrod of Forsyth, was elected President.

The following officers were then balloted for and declared duly elected: First Vice-President, Dr. W. A. Mulherin, Augusta; Second Vice-President, Dr. B. H. Wagnon, Atlanta.

Delegate to the American Medical Association, Dr. Allen H. Bunce, Atlanta; Alternate, Dr. W. C. Lyle, Atlanta.

Councilors were elected as follows: First District, Dr. Charles Usher, Savannah; Second District, Dr. C. K. Sharp, Arlington; Third District, Dr. V. O. Harvard, Arabi; Fourth District, Dr. Oscar M. Roberts, Carrollton; Sixth District, Dr. M. M. Head, Zebulon.

THE PRESIDENT: I take great pleasure in introducing to you your next President, Dr. Elrod. (Applause.)

DR. ELROD: Dr. Daniel and Gentlemen: You do not know how much I appreciate this honor and I cannot tell you how much I appreciate it. I recall a remark that Dr. Palmer made at the time of his election, he said he would rather be President of the Medical Association of Georgia than of the United States. I feel the same way and I shall give you the best I can as your incoming President. I bespeak of you your assistance to make it the best year we have had for a long time. I have had a dream ever since I have been a Council about having every county thoroughly organized so that we may have as nearly as possible a 100 per cent membership. I hope you will each one help me to carry this dream into realization. (Applause.)

We will now proceed with the program, and I will ask Dr. Stewart R. Roberts to present his paper.

38. Dr. Stewart R. Roberts, Atlanta, read a paper entitled "The Treatment of Pneumonia."

Discussed by Drs. E. C. Thrash, Atlanta; R. L. Miller, Waynesboro; J. W. Palmer, Ailey, and in closing by the essayist.

On motion of Dr. Miller, duly seconded and carried, the following papers were read by title:

39. Dr. Julian K. Quattlebaum, Savannah, "Gas Bacillus Infection."

40. Dr. H. P. Harrell, Augusta, "Report of a Case of Measles Accidentally Transmitted by Blood Transfusion, Preerupted Stage."

As there was no further business to come before the meeting, on motion, the Association adjourned to meet in Atlanta in 1925.

ALLEN H. BUNCE, M. D.,

Secretary-Treasurer.

PROCEEDINGS OF THE HOUSE OF DELEGATES

Wednesday, May 7, 1924

First Meeting

The House of Delegates was called to order at 9:10 A. M. by the President, Dr. J. W. Daniel, Savannah.

The Secretary called the roll.

THE PRESIDENT: The first thing for our consideration is the report of the Committee on Constitution and By-Laws, Dr. Clark, Chairman.

DR. CLARK: The Committee on Constitution and By-Laws appointed two years ago have some recommendations. We reported last year and the matter was tabled until the present time, so it comes up today for your consideration. Your Committee tried to find out what the State Association wants with reference to rules governing it which would make it more easily done and more pleasantly done, and has tried not to inject any of their personal opinions. Some things were suggested as the result of experience for qualifying the present Constitution.

In Articles I, II and III no change is recommended, nor is any change thought necessary in Article IV.

In Article V—House of Delegates, it is suggested that following (3) the words "ex-officio" be omitted and that the President and Secretary be full members. It is also suggested that the word "parliamentarian" be inserted after "Secretary" and that a fourth clause be added as follows: (4) ex-Presidents and Delegates to the American Medical Association. Article V will then read, "The House of Delegates shall be the business body of the Association and shall consist of (1) delegates elected by the component societies; (2) the councilors; (3) the President, Secretary and Parliamentarian of this Association; (4) ex-Presidents and Delegates to the American Medical Association."

THE PRESIDENT: Gentlemen, you have heard the proposed changes in this Article, what is your pleasure?

DR. THRASH: I move its adoption.

Seconded and carried.

DR. CLARK: In Article VI—Council, our only suggestion is that the word "ex-officio" after "Secretary" be omitted.

DR. BOLAND: I move its adoption.

Seconded and carried.

DR. CLARK: In Article IX—Officers, in Section 1, line 3, after the words "Secretary-Treasurer"—and this is not a recommendation of your Committee but it just straightening out your wish of two years ago when you wished a parliamentarian—add the word "Parliamentarian." Section 1 would then read, "The officers of this Association shall be a President, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and twelve Councilors, one from each congressional district."

DR. COLEMAN: I move its adoption.

Seconded and carried.

DR. CLARK: It is further suggested that in Section 2 of Article IX, line 10, after the words "five years" the words "and the Parliamentarian for a term of three years" be inserted.

In Section 2 at present there is no provision for the councilor from the twelfth district and that was omitted in the published article in the Journal in July. The word "twelfth" should be added after "eleventh."

It has been suggested that the officers, except the Secretary-Treasurer and Parliamentarian shall be elected annually, the terms of the Councilors shall be as at present, that the Secretary-Treasurer shall be elected for five years and the Parliamentarian for three years.

DR. HARVARD: I move its adoption.

Seconded and carried.

THE PRESIDENT: I recall that at the last meeting a notice was given to change Article VII—Sessions and Meetings. The Committee made no recommendation but

notice was given to change the annual meeting from the first Wednesday in May to the second Wednesday in May, at such place as shall be selected by the Association. but wish to know what the idea is. Some

DR. BOLAND: I move its adoption.

DR. COLEMAN: I have no objection members say it is too hot now and want the date changed back the other way. Another objection is the confusion that arises from it. I am willing to accept it but do not see any reason to accept it.

DR. THRASH: The National Tuberculosis Association meets the first Wednesday in May and this is one of the most important of the National Associations. I think the National Laryngological Association and several others also meet at this time. A few years ago I counted about five National associations that met during the first week in May. I think we should either move the date forward or back one week for the first week in May seems to be a favorite time for the National Associations and our meeting is conflicting this year with several of them.

THE PRESIDENT: Is there any further discussion?

DR. COLEMAN: That is information I did not have. I am willing, with the information Dr. Thrash mentioned, that we should change. The third Wednesday in April, which was our meeting time for time immemorial, conflicted with other State associations so we moved up for that reason and if we still conflict we can jump again. I second the motion.

Motion put to a vote and carried.

DR. CLARK: It is also suggested that in Section 3 of Article IX the words "3 o'clock" be changed to "12 o'clock." The Section would then read, "The officers of this Association shall be elected by ballot, and without nomination, at 12 o'clock on the third day of the annual session."

DR. HARVARD: I move its adoption.

Seconded and carried.

THE PRESIDENT: It might not be very

unwise right here to determine, as this program has not yet been adopted, as to what we will do. As I understand it, immediately upon adoption by the general convention it becomes effective at once, and therefore you might interfere with your program of this session, so we should look into that.

DR. BOLAND: I suggest that the word "noon" be inserted after "12 o'clock"; otherwise they might have it at midnight.

DR. CLARK: There is no objection to that.

It has been suggested that a fourth section be added to Article IX, as follows: "Any member known to have solicited votes for, or sought any office of the Association shall be ineligible for any office for two years."

DR. HARVARD: I move its adoption.

Seconded by Dr. Boland.

THE PRESIDENT: Gentlemen, you have heard the amendment to the Constitution as offered by the Committee. Its adoption has been moved and seconded, what is your pleasure?

DR. WAGNON: I object to this last paragraph. The man who is going to be President is not going to go around and solicit votes. I do not think it is well to have that in our Constitution.

DR. McARTHUR: I see no objection to passing this except that it is a reflection on our organization and those who do not know might think there are people who are seeking office and lobbying. I think this Association is able to take care of that if it should arise without any law to govern it. I think it is entirely unnecessary. I want to be thoroughly understood, Mr. President and gentlemen. For a man to go out and seek office in an organization like this on the face of it is ineligible for that office. I think it is very wrong for a man to seek office, but I doubt the propriety and wisdom of our having to make a law of that kind.

DR. CLARK: I might explain that be-

fore taking up this matter we got as many of the constitutions and by-laws of the different state associations as we could and were surprised to find that nearly all of them had a similar law. We thought if it was so widely done as all that, without any reflection whatsoever on our Association, that it would be wise—since the Association is so well behaved and no member has ever been inclined that way—and that there would be no objection to its adoption. It is so uniformly done by other associations we thought it must be a good thing and that we would present it for your consideration.

DR. THRASH: It is like the American College of Surgeons requiring an oath not to split fees. A man who will take such an oath will split fees. It is a reflection. I was asked to take an oath that I would not split fees in connection with the Grady Hospital staff. I said, "I am not going on the Grady Hospital staff, but I would not take an oath that I would not split fees." I think this is odious and should not be allowed.

President Daniel requested Vice-President Mooney to take the Chair.

DR. DANIEL: In my opinion this is a bad thing for the Constitution. If we have political rivalry, and we will have for it is born in us, we may have charges brought against a man who has friends working for him. If charges are brought against a man and he is said to be ineligible you have to try him before you can say he is not, but before that you must give him a trial and you simply muddy the waters and do more harm than good. I oppose any such amendment. It is not good to say a man is not eligible because his friends work for him. You cannot curb your friends—they will work for you. I think this is a bad move and that it will embarrass the Association.

DR. COLEMAN: I agree very heartily with the spirit of this amendment, but I agree with Dr. Daniel that it is unwise and unnecessary.

The President resumed the Chair.

THE PRESIDENT: Gentlemen, the question has been called for, all in favor of this proposed paragraph say aye.

Motion lost.

DR. CLARK: That finishes the suggestions for the Constitution. Under the By-Laws, in Chapter II—General Meetings, after Section 1, it is suggested that we insert the following, which are taken partly from Chapter VIII—Miscellaneous:

As Section 2. No papers or addresses before the Association except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery: and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

THE PRESIDENT: What is your pleasure, gentlemen?

DR. HARVARD: I move its adoption. (Seconded.)

THE PRESIDENT: Will you kindly read that again? There is some confusion as to where it formerly was.

DR. CLARK: It is now on page 20 under "Miscellaneous." Those rules really belong under General Meetings and your Committee thought it would be well to embody them in that Chapter, and to add the sentence giving each essayist five minutes in which to close the discussion of his paper.

Motion voted and carried.

DR. CLARK: It is suggested that Section 2 under Miscellaneous shall be made Section 3 of Chapter II, as follows: "Section 3. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published."

DR. THRASH: I move its adoption.

Seconded and carried.

DR. CLARK: As Section 4 it is sug-

gested that we add the following: "Section 4. Guests. Any physician not a resident of this state but a member of his state association, or any distinguished scientist not a physician, may be counted a guest during any annual session on invitation of the President, and shall be accorded the privilege of participating in the scientific work of that session."

DR. HARVARD: I move its adoption.
Seconded and carried.

DR. CLARK: As Section 5 the following is suggested: "Section 5. Order of papers. The order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until this has been completed, provided the papers of any meeting shall not encroach upon the papers of any subsequent meeting."

THE PRESIDENT: Do you mean that the program of the morning must be finished before that of the afternoon is taken up?

DR. CLARK: Any paper that is not read at the morning session—if the scientific program is not finished at one session we shall begin with them at the next.

THE PRESIDENT: If our morning session is not finished do we resume that when we start in the afternoon, or do we start with the afternoon session?

DR. CLARK: The intention of the Committee was that that should be the rule. If you have not finished your morning session by adjournment after resumption you take up the papers as in the program and if these are finished before adjournment then you revert to the papers left over from the morning. If this is not clear you may amend this, you do not have to have it worded just as it is. Perhaps we have not made it clear and so you may clarify it.

DR. BOLAND: I move its adoption.
(Seconded.)

DR. MULHERIN: I think we should stick to the old order. I cannot see any advantage in this new method. As I understand at present we run the program right along by numbers just as we get to them.

What is the advantage in this plan?

DR. CLARK: The object of the Committee is this: The programs are sent out and a doctor finds he is on the program for Thursday, for instance, at about a certain hour and he cannot always be there. With this plan the doctor knows if he comes on Thursday morning he will be given an opportunity to read his paper at the time provided and that his time will not be taken up with some unfinished business of the day before. Under the other plan if you have an abundance of papers he does not know when he may come.

DR. MULHERIN: But yet a doctor may be there the first day and not be reached and have to stay over to read his paper. I can see no advantage in it.

THE PRESIDENT: Are you ready for the question?

DR. McARTHUR: There are two sides to this question, as to most. Those of us who follow these programs year after year have found that there is constantly recurring confusion as to when one assigned a place on the program is going to be called. It would be unfortunate if some fellow prepared a paper and the program was so crowded that he could not be reached before that particular period was closed, but to my mind the suggested amendment is an improvement. At least we have tried the other for quite a while and it has caused a great deal of confusion. I am in favor of trying out this new plan. If it does not work out it can be changed again very easily.

DR. COLEMAN: I do not think this suggestion obviates all the disadvantages, but I think it will be an improvement and I favor it.

DR. ANDERSON: The Committee on Program have worked this out and mapped out the program with all these things in view and if the men are on time the program will be carried out and the men will be allowed to read their paper when they are supposed to. This amendment is

the proper thing and I am in favor of it.

DR. THRASH: I am in favor of it but would suggest that we add the following: That each session be finished during the time allotted to it unless by unanimous consent of those present the session adjourns.

DR. HARVARD: I second this amendment.

DR. CLARK: Do you mean that you want the Association to change this at any time without notice?

DR. THRASH: This is to see that the program for a given time is completed and the President is to see that it is completed. He shall drive with all his might and main to see that it is completed in the proper time.

THE PRESIDENT: If I understand your proposed amendment it is that even if we run through to one or two o'clock with the morning session, for instance, we shall go on and finish it without lunch, if necessary. That we shall run on until someone makes a motion to adjourn, and that it requires a unanimous vote to adjourn, if any papers are not finished. Is that correct?

DR. THRASH: Yes. If one man wants to read his paper he can stay and read it whether anybody else stays or not.

DR. CLARK: Does that mean that a motion to adjourn cannot take effect unless by unanimous consent? All parliamentary law is to the effect that on majority consent a session may adjourn, but of course you can make that ruling if you wish.

Pardon me for a suggestion, but let us have some standing rules, instead of so many by-laws. If there is a standing rule and it does not work well then at the next session you have the privilege of changing it without notice at all. It seems to me this is the wise thing to do. The man on the program for one day has been displaced because the man who was on for the first day took his place, and the man on for the third day has been displaced, and for that

reason your Committee thought it wise to define this. Realize, gentlemen, that we are democratic and all have our opinions. There must be rules to govern and in making rules for the minority we may be protecting the absentee. Let us have the ruling so that the absentee is protected. He is given notice beforehand so that he can come and have a voice in it.

DR. McARTHUR: That does not mean that a paper could not be read by title and appear in the Journal?

THE PRESIDENT: I will have to ask for information from our Parliamentarian. What is the rule in this Association where a man is crowded off the program for lack of time? Is he allowed to publish that paper?

DR. WAGNON: I move that this provision we are discussing be tabled.

Seconded and carried by a rising vote.

DR. CLARK: We suggest that Section 2 of Chapter II, Entertainments, now become Section 6.

DR. WAGNON: I move its adoption.

Seconded and carried.

DR. CLARK: In Chapter III, it is recommended by your Committee that the House of Delegates shall meet on the day preceding the Annual Meeting, the hour to be fixed, the first sentence of Section 1 to read: "The House of Delegates shall meet on the day preceding the first day of the Annual Session."

DR. MULHERIN: What is the advantage of that?

DR. CLARK: We have not had sufficient time. We meet at nine o'clock and hurry through for the scientific work on the first day, and then we meet the next morning at nine o'clock and do not have sufficient time. The men go home knowing very little about the business of the Society but if we devote the afternoon before to that then we can take up the work and have more time, and not interfere with the scientific work. I think it will create more

interest in the work of the Association.

DR. MULHERIN: I move its adoption. (Seconded.)

DR. BOLAND: When will the hour be settled upon?

DR. CLARK: I should think when you decide upon your program that the Program Committee could decide when the House of Delegates will meet. In the original Constitution and By-Laws we had an hour set for the meeting.

THE PRESIDENT: I think you will have to consider where you are to meet in selecting the hour, and be governed somewhat by the arrival of trains. If the meeting is to be in Southern Georgia, for example, we can all get in on the early morning trains. We must consider this.

DR. THRASH: I think it should be mentioned definitely who shall set the hour—we have the President, the Secretary and the Council.

DR. COLEMAN: I think the position of the Committee is well taken, but I am not in favor unless some definite provision as to the hour shall be arranged.

THE PRESIDENT: If you will pardon a suggestion from the Chair I would suggest that the Council or the Program Committee shall do it.

DR. COLEMAN: With the provision that the Program Committee shall arrange it I am in favor of it.

DR. LYLE: As a member of the Committee I wish to say something in explanation. The official call of the meeting of the House of Delegates is issued by the President of the Association. Therefore, when the official program goes out some two weeks in advance the hour, the time and day is set and that certainly is under the call of the President for he fixes the time.

THE PRESIDENT: With Dr. Lyle's explanation are you ready for the question?

Motion put to a vote and carried.

The President requested Dr. J. M. Smith to take the Chair, in the absence of Vice-President Mooney.

DR. CLARK: On page 9, Section 3 of Chapter IV—Duties of Officers, there is a provision which we recommend shall be omitted, as follows: "He shall pay money out of the treasury only on a written order of the President."

DR. THRASH: I move its adoption.

Seconded and carried.

DR. CLARK: Under Chapter V—Council, we suggest that there be added to Section 1, "It shall be the business body of the Association and attend to the business of the Association."

DR. WELLS: I move its adoption. (Seconded.)

DR. WAGNON: What would be the difference? Is the Council not the business body of the Association at the present time?

DR. CLARK: It is, but nowhere in the Constitution and By-Laws is it so stated. All matters pertaining to finance must be referred to the Council, but there is nothing to arrange for business emergencies. It was our intention to do that and we thought we would have it incorporated in the By-Laws.

THE CHAIRMAN: Are you ready for the question? All in favor say aye.

Motion put to a vote and carried.

DR. CLARK: Your Committee recommends that the following sentence be added to Section 2 of Chapter V: "Each Councilor may appoint a Vice-Councilor to assist him in performance of his duties in that district."

DR. WAGNON: I move its adoption.

Seconded and carried.

DR. CLARK: In Section 3, we recommend that in line 12, after the word "Councilor" there be added "or to which attention has been called by the Councilor or interested members." At the end of this add the following sentence, "It shall hear and decide all questions affecting unethical conduct on the part of any member at any annual session," this to precede "and its decision in all such matters shall be final when ratified by the Association."

DR. McARTHUR: I move its adoption.
Seconded and carried.

DR. THRASH: I move that anyone who wishes to go to the General Meeting shall be excused.

THE CHAIRMAN: I do hope you will stay here and go through with this work. What is next, Dr. Clark?

DR. CLARK: In Section 5 of this Chapter it is recommended to change the last sentence to read, "In the event of a vacancy in the office of Secretary-Treasurer the Council shall fill the vacancy until the next annual election."

DR. WAGNON: I move its adoption.
Seconded and carried.

DR. CLARK: It is recommended to change Section 8 to Section 10; Section 9 to Section 8 and Section 10 to Section 9. That changes the sequence only, nothing else.

DR. BOLAND: I move that this be done.

Seconded and carried.

DR. CLARK: In Chapter VI—Committees, Section 2, it is recommended to omit the last line which reads, "No such address or paper shall exceed the time limit fixed by the Committee on Scientific Work," and in Section 3 to omit "Under the direction of the House of Delegates."

DR. WAGNON: I move its adoption.
Seconded and carried.

DR. CLARK: In Chapter VII—County Societies, we recommend that Section 6 be changed to read as follows: "No matter what unethical conduct or discipline of the members of the County Society, both plaintiff and defendant shall have the right to appeal to the Council and its decision shall be final when ratified by the Association."

DR. BOLAND: I move its adoption.
Seconded and carried.

DR. CLARK: For Chapter VIII we recommend that "Rules and Ethics" shall be substituted for "Miscellaneous," the two first sections of which have been absorbed. We recommend making the present Section 3, Section 1 and add Section 2 as follows: "The principles of Medical Ethics of the

American Medical Association shall be those of this Association."

DR. THRASH: I move its adoption.
Seconded and carried.

DR. CLARK: It is also recommended that to this Chapter we add Section 3, as follows: "Any member of this Association on locating in a new place for practicing his profession may place his professional card containing name, address, telephone number and statement as to whether or not his practice will be limited to any particular class of diseases in the local paper for a period not longer than one month. The placing of such card for this period of time shall not be considered unethical. The use of the word "specialist" by any member in connection with his name in any newspaper, telephone directory or other public places shall be considered unethical."

DR. BOLAND: I move the adoption of this Section.

Seconded and carried.

DR. CLARK: Your Committee think they were very fortunate in feeling your pulse so well, in that there have been so few changes suggested.

THE CHAIRMAN: Until the program is officially adopted you have no order of business.

DR. BOLAND: I move the adoption of the program as published.

Motion seconded and carried.

DR. MULHERIN: I move that we adjourn. The General Meeting is now going on.

Motion seconded and the House of Delegates adjourned at 10:30 A. M.

ALLEN H. BUNCE, M.D.,
Secretary-Treasurer.

Wednesday Afternoon, May 7, 1924 Second Meeting

The House of Delegates was called to order at 5:20 P. M. by the President, Dr. J. W. Daniel, Savannah.

DR. B. H. WAGNON: I move that the recommendation of the Committee on Constitution and By-Laws be taken from the table.

Seconded and carried.

DR. B. H. WAGNON: Now I move that this section of the By-Laws be adopted. (Seconded.)

THE PRESIDENT: You are all familiar with the section under discussion? Do you wish any information? If not, all in favor of the adoption of the report signify by saying aye.

Motion voted and carried.

THE PRESIDENT: The next order will be the consideration of the reports of committees. We will first listen to the report of the Committee on Medical Defense by Dr. M. A. Clark, Chairman.

DR. CLARK: We have had 22 cases for defense, one of which probably never will be brought up for trial. If it is we feel sure it will be won. In the second case suit was brought for damages on the complaint of negligence. Suit was prepared but plaintiff did not appear and it was dismissed for lack of prosecution. The third case was one in which it was claimed cocaine was used and resulted in the death of a child. A demurrer was filed and the Court has not yet passed on it. The fourth case was a damage suit for \$15,000 for alleged carelessness in the use of X-rays which caused the patient's hair to fall. That resulted in a verdict for the patient. The fifth case was one for damages for removal of the tonsils. That has not yet been tried but will be reached in the next six months. Case six was a suit for \$10,000 for alleged malpractice. A demurrer was filed and probably will be sustained, for the attorneys say they see no merit in the case. The seventh was a suit for \$10,000 damages, the plaintiff claiming that the doctor had alienated his wife's affections. It was tried and resulted in nonsuit, but was carried to the Court of Appeals and sustained. The eighth was another suit for \$10,000 damages but plaintiff did not appear and the suit was dismissed. The ninth was a suit

for damages which is still pending and we hope to have it nonsuited. Case ten, for damages, is now in the Court of Appeals and we expect to have it dismissed. Case eleven was one for \$5,000 damages, which has been settled. Case twelve, for \$25,000 damages, has not yet reached trial but we feel hopeful for success in this case. In case thirteen a cross petition was filed for \$5,000 damages but an agreement was reached and the case was dismissed. In case fourteen, for \$5,000 damages, the Court sustained the demurrer. Case fifteen was a suit for damages and the case has not yet reached trial but the outlook is encouraging. Case sixteen was for \$15,000 damages and that has not yet reached trial. Case seventeen, for \$10,000 damages, has not yet reached trial. Case nineteen was for \$10,000 damages and the husband of the patient sued for expenses amounting to \$87.50. That case has been won. Case twenty was for damages, the amount not stated, but they think they will dispose of it without trial. Case twenty-one will probably not be tried for several months, but will probably have to be tried. In case twenty-two, a suit for damages, the physician has already appointed his own attorney but our attorneys for Medical Defense have acquainted themselves with it in case it is brought to trial.

The cases now pending will cost \$2,240.00 to take care of and we have in the treasury \$600.00. We feel that we will need to take care of the suits for damages next year \$3,500.00, so we ask that you will grant us that much money. Of course, this being a matter of finance it will have to be referred to the Council before you can take action on it.

I wish again to commend our attorneys. We are very fortunate in our attorneys because of the willingness and readiness with which they work. Whenever there is a suit for damages, gentlemen, do not em-

ploy local counsel. Bring the matter to the Secretary and then the State defense counsel will take it up with local counsel and that will make it much easier to take care of.

DR. THRASH: Do you think it would not be well to call attention to the fact that these suits have not been confined to the larger cities?

DR. CLARK: That is a good point. The largest suits we have had have been in small towns.

DR. WAGNON: I did not hear just how much the Committee had to expend.

DR. CLARK: You gave us \$3,300.00 and we have spent all but \$600.00. We have suits now pending that will cost about \$2,200.00.

DR. WAGNON: How much did you ask for this year?

DR. CLARK: We have asked for \$3,500.00.

THE PRESIDENT: Do you wish any further information?

DR. J. W. SIMMONS: I move that the report be adopted and that the request for money be referred to the Council.

Seconded and carried.

DR. McARTHUR: This Committee has been giving a good deal of thought to this work. I am reminded in hearing the report that the suits are multiplying very rapidly and more suits are being filed each year. I would like to have the Chairman state how the Committee accounts for this. They have not been winning enough suits to cause them encouragement, have they?

THE PRESIDENT: Dr. Clark, will you explain your ideas about this?

DR. CLARK: It probably has a good deal to do with the physicians suing for their bills. In the report there were only two or three that were won. The attorney says many of the suits are filed in order to defeat the doctors in the payment of their bills, although some claims are made in good faith. As I have remarked to you before, I think a good many suits are due to the carelessness of physicians in giving opinions about something that they do not

know about. A layman goes to a doctor and tells him something and the doctor thoughtlessly gives an opinion and the suit is the result. If we will be more careful about giving opinions I am sure we can save some suits. The largest suit we have had and the one that cost us the most money was the result of some criticism by another physician. When it came to putting him on the stand he would not testify. We won the suit but it cost a good deal of money to do it.

A question has been asked as to what is the status of a member who pays his dues to the County Secretary and those dues have not been sent to the Secretary of the Association. That is an unfortunate situation for the member, for according to our Constitution and By-Laws he cannot be fully credited as a member until the State Secretary has received his dues.

THE PRESIDENT: What becomes of those men whose dues are not received at all? The Secretary last night reported that several checks had been received by him, in the amount of about \$235.00, from County Secretaries whose checks had been returned by the banks. What has become of the membership of those men who paid the money to their County Secretary?

DR. CLARK: According to our Constitution and By-Laws they are not members of the Association. The members of the Society have to make it good. The Medical Association of Georgia is made up of County Societies.

DR. HAFFORD: I would suggest that the Secretary mail a letter to every member of the societies whose secretaries sent those checks. In that way I think it can be straightened out.

THE PRESIDENT: Dr. Bunce has already done that.

DR. ANDERSON: The statement has been made that in many states the medical defense has become prohibitive and it will be here within a short time.

I move that the Committee on Medical Defense investigate the problem and find

out whether or not we can arrange with some indemnity company to defend us for an annual fee. They are doing that in some states, where they arrange with some indemnity company to protect them for an annual fee.

Motion seconded and carried.

DR. ELROD: I believe it is due this Committee to have a vote of thanks for the work they have done this past year. I move a rising vote of thanks.

Seconded and unanimously carried.

THE PRESIDENT: We will next have the report of the Committee on Necrology, Dr. R. L. Miller, Chairman.

Dr. Miller presented the following report:

Report of the Committee on Necrology

We do not claim that this is a complete report as we encountered much difficulty in securing a list of those members who have died during the past year.

We also suggest that in the future all secretaries of local societies make a prompt report of all deaths occurring among their members to the Secretary of the Association.

As best we can learn the following members have died during the past year:

Dr. John A. Alley, Atlanta.
 Dr. Samuel A. Brown, Eton.
 Dr. D. M. Buchan, Wray.
 Dr. J. H. Crozier, Cedar Springs.
 Dr. J. H. Crawford, Martin.
 Dr. George L. Chapman, Milledgeville.
 Dr. J. I. Darby, Columbus.
 Dr. Wm. H. Doughty, Jr., Augusta.
 Dr. J. L. Durham, Woodville.
 Dr. L. P. Eberhardt, Elberton.
 Dr. A. L. Fowler, Atlanta.
 Dr. J. H. Griffin, Armuchee.
 Dr. G. T. Gray, Lyons.
 Dr. L. A. Graybill, Oconee.
 Dr. M. B. Hutchins, Atlanta.
 Dr. R. N. Hogg, West Point.
 Dr. A. G. Kelley, Atlanta.
 Dr. J. T. King, Quitman.
 Dr. T. J. Kennedy, Coolidge.
 Dr. J. W. Lambert, Luthersville.
 Dr. T. K. Mitchell, Lawrenceville.
 Dr. W. J. Mathews, Elberton.

Dr. Augustus M. Burt, Macon.

Dr. George M. Norton, Savannah.

Dr. J. W. Puckett, Atlanta.

Dr. F. H. Phillips, Harlem.

Dr. W. L. Sikes, Sylvester.

Dr. J. J. Watkins, Glenville.

Dr. W. F. Walker, Preston.

Dr. Thomas R. Wright, Augusta.

Dr. J. R. Statham, Americus.

Dr. H. P. Quillian, Winder.

Dr. E. W. Watkins, Ellijay.

Dr. J. T. Edwards, Fayetteville.

Dr. J. P. McWilliams, LaFayette.

Dr. J. P. Proctor, Athens.

Dr. Walter E. Saunders, Arlington.

Respectfully submitted,

R. L. MILLER,

Chairman.

DR. WAGNON: I would like to know whether the gentlemen mentioned in this report were all members of the Medical Association of Georgia.

DR. MILLER: The names were furnished me by the county secretaries, by the State Secretary, and were also culled from the death records.

DR. BUNCE: In reference to this report, it is like getting information about a good many other things. We request all county secretaries to send us the names of those who die. We have sent as many as five letters to a secretary without any reply at all. In reference to many things that occur in societies we have written the secretary and have mail coming back to us all the time. The men move and do not notify us and then write a very hot letter later on and say that they have not received their journal at such and such a place. We try to get information in every way we can. We subscribe to a clipping bureau but we have some very inefficient or negligent secretaries. If they will send us a postcard when a man dies or when he moves out of their county we can easily keep our records straight and many mistakes can be avoided.

DR. MILLER: I am firmly convinced that there are many doctors in Georgia who

either cannot read or write, or who have been denied the use of the United States mails. (Laughter.) I have written to every councilor asking him to furnish me with a list of those who have died in his district, which he should be able to get from his secretary if he did not know himself. I have received a reply from some but have written as many as four or five letters to others without receiving any reply whatever. I wish to give my thanks to Dr. Bunce, for I would not have had a dozen names on the list if it had not been for him.

THE PRESIDENT: You have heard this report, gentlemen, what will you do with it?

DR. BOLAND: I move its adoption.

Seconded and carried.

THE PRESIDENT: I will now ask for the report of the Committee on Health and Public Instruction, Dr. Theodore Toepel, Chairman.

Dr. Toepel then presented the following report:

Report of the Committee on Health and Public Instruction

To the House of Delegates of the Medical Association of Georgia.

Gentlemen: Your Committee begs to submit the following: It has been our endeavor during the past year to create an interest among the members to affiliate with lay bodies whose desire to improve public health is a laudable one but who need the advice and cooperation of the scientifically trained physician.

One circular letter, setting forth the importance of better organization of professional men and laymen for the purpose of improved community health was mailed to every member. The pamphlet, "Periodic Health Examinations of the Apparently Healthy Persons," by Dr. Emerson with a copy of "examination record" were also mailed to every member.

One hundred and fifty-two dollars were spent.

Your Chairman has been to Macon twice, to Savannah, to Waycross, to For-

syth and to Brunswick in the interest of public health and instruction. The Committee again requests an appropriation of \$250.00 with which to carry on the campaign of public education on the subject of the relationship of the medical profession to the public and its health.

Of the thirty-five replies received from the secretaries of the county societies the following compilation tells of the activities of our component bodies.

1. Twenty-five tonsil and adenoid clinics were held.

2. One hundred and ten cases were operated upon as charity and sixty were semi-charity.

3. Four county societies replied that operating on semi-charity cases in groups was satisfactory.

4. Nineteen hundred and eighty-two cases were examined and treated in clinics, such as refraction, pediatric, tuberculous, trachoma, hookworm, scabies, cancer, joint and bone conditions, dental and vision.

5. It has proved that a community with a full time Ellis Health Law official with the cooperation of the county medical society is the solution of successfully conducting any kind of public health work.

6. Ten thousand, one hundred and ten school children were examined free of charge by members of the county societies.

7. There are six county health councils operating where medical men and laymen are working unitedly.

8. These councils in a cooperative spirit are looking after the examination of school children, tuberculous patients, general public health conditions and clinics. One council conducts a weekly clinic where all physical defects are treated.

9. Two hundred and ninety-one public health lectures were given and 31,870 people have been reached.

10. Six counties have a committee on public health.

11. Seven county societies give information on public health matters through the press.

Recommendations

I. A closer relation between the Medical Association of Georgia and the Educational Association of Georgia is most desirable. Your Committee recommends that the Secretary of the Medical Association of Georgia address a communication to the President of the Educational Association of Georgia requesting him to appoint a Committee on Health of three members. Said committee to meet with the Committee on Health and Public Instruction of the Medical Association of Georgia to discuss jointly the health conditions of the children in the public schools of the state and then to report back to their respective parent bodies.

II. Graduates in medicine have a training long and expensive, and we believe the wider knowledge and efficiency justify us in securing a fair return in money for the services we render. This desire for money is not indicative of a low idealism. The physician of today is compelled to protect himself against a certain part of the public which is taking advantage of our unselfish service. The Committee feels that the requests to perform operations and to give treatment to groups at reduced rates should be discouraged, as it is not in keeping with the dignified standing of the medical profession, but that hereafter, as has been the custom in the past, charity be practiced and the ability to pay be a matter of individual determination.

III. According to the report there are only seven county societies that give information on medical matters to the public through the press. This is not taking advantage of the times. Now is the time to inaugurate an intensive program of acquainting the public with the function of preventive medicine. Let us swing farther away from the narrow confines of our calling, make larger contacts with men and things in the other circles of life, and organize ourselves into a sales force in biologic education. Society needs the knowledge we possess. Our calling need not be

hedged about by mystery. It is no discredit to us to herald our achievements to the world. At the same time we should admit our limitations about diseases which still baffle our knowledge concerning them. Public activity of this kind cannot be construed as advertising, which the Code of Ethics defines as direct or indirect laudatory articles in the public press concerning a physician's management of cases.

IV. Each county society should have a public health committee, and it should be the special function of such committees to maintain a list of physicians available for public activities, such as tuberculosis week, cancer week, child health days and radio talks.

(The report of the Committee on Health and Public Instruction will be continued in the July issue of the Journal.)

CASE RECORDS OF THE

Massachusetts General Hospital

Arrangements have been made with the Massachusetts General Hospital to publish in the Boston Medical and Surgical Journal in regular weekly installments, reports of the exercises which have hitherto been frequently referred to under the title of "The Cabot Case Records."

These Case Records virtually add each year to the reader's practice 156 thoroughly studied cases with opinions and discussions by eminent consultants and detailed post-mortem findings. They have proved an invaluable stimulus both to the individual reader and as a basis for group discussion. The subscription price for the Journal is six dollars per year. Foreign postage additional.

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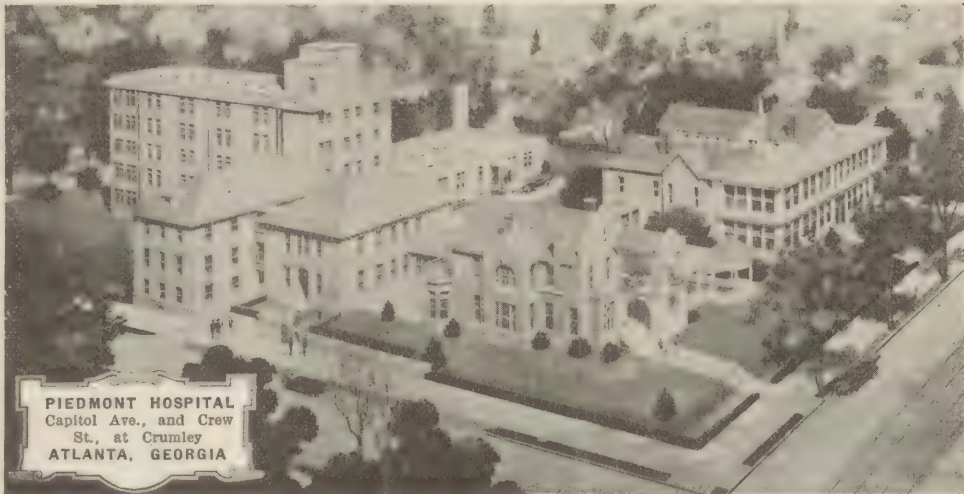
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the Postal Union, \$7.50 per year.
(Journal Med. Assn. of Ga.)

CONSTITUENT COUNTY SOCIETIES

County	Society	President	Address	Secretary	Address
Altamaha		J. M. Hall	Hazlehurst	G. C. Overstreet	Hazlehurst
Baldwin		Richard Binion	Milledgeville	H. D. Allen, Jr.	Milledgeville
Banks		J. S. Jolly	Homerville	O. N. Harden	Homerville
Barrow				W. T. Randolph	Winnsboro
Barrow		W. C. Griffin	Cartersville	T. Lowry	Cartersville
Bon Hill		L. S. Osborn	Fitzgerald	W. P. Coffee	Fitzgerald
Berrien-Lanier		Officers not reported			
Bibb		Herring Winship	Macon	J. Fred Adams	Macon
Blue Ridge		J. M. Daves		C. B. Crawford	Blue Ridge
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SYMPOSIUM OF DISEASES OF CHILDREN

ACIDIFIED MILK WITH KARO SYRUP AS AN INFANT FOOD*

**W. A. Mulherin, A. M., M. D.,
Augusta, Ga.**

There has existed, from time immemorial, the necessity for the artificial feeding of infants. While breast milk today is advocated first, last and always, when it be a practical and logical procedure; the death of the mother, the wear and tear of childbirth on the physical strength of the mother, the occasional abandonment of the baby, not infrequently necessitates a resort to artificial means of nourishment. Upon how well artificial feeding is done will frequently depend the health, happiness and even the life of the baby. A responsibility that should not be accepted too lightly by any physician.

Old Theory and Practice

Until very recently the principles underlying all accepted and approved methods of artificial feeding of infants have been about as follows: Cow's milk is the next best food after mother's milk, it contains all the ingredients possessed by mother's milk. The ingredients of cow's milk are more difficult of digestion than those in

human milk, especially the fats and proteins. It was taught that the difficulty in digesting the fats and proteins of cow's milk was due to biological and chemical differences existing in the human and cow's milk, mainly in the fats and proteins. Therefore in order to make the fats and proteins of cow's milk more digestible water was added to dilute them. Sugar or starch (barley flour, etc.) was then added in order to enrich the milk sufficiently to nourish the baby. The mineral or inorganic salts in cow's milk were completely ignored. It was claimed that these salts practically had no effect on digestion and might be figured as one-fifth the amount of proteins in formula, and were deserving of no further consideration.

New Theory and Practice

The principle of the new theory in artificial feeding of infants is directly opposite to that of the old one. The mineral or inorganic salts in cow's milk receive first consideration. As is well known these salts are three and a half times as numerous in cow's milk as in breast milk. These mineral salts act as a "buffer substance," that is a substance that absorbs, or neutralizes, the hydrochloric acid in the gastric secretions. The phosphates and calcium caseinate are the chief buffer salts in cow's milk, two-thirds being present in the casein and

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one-third in the whey proteins. These buffer salts absorb or neutralize a definite amount of the hydrochloric acid in the gastric secretions, and just in direct proportion to the amount of their neutralization do they interfere with digestion of cow's milk. The fats and proteins are ignored in the new conception of artificial infant feeding, the same as the inorganic salts were ignored in the old method.

It is claimed that the physiological properties of hydrochloric acid in the process of digestion are to stimulate motility of gastric and intestinal muscles, to open the pylorus, to stimulate the flow of bile, pancreatic and intestinal secretions, to promote absorption of fats, proteins and mineral salts, and to inhibit bacterial growth. Therefore the big idea in the new method of artificially feeding babies is to neutralize the buffer substance (mineral salts) in cow's milk and thereby allow the hydrochloric acid in the gastric juice full sway to exert its favorable influence on the digestion of cow's milk. Theoretically, if it be the buffer substance in cow's milk that prevents it from being as digestible as mother's milk, the removal or neutralization of these inorganic salts should permit us to feed full strength undiluted cow's milk to newly born babies and even to premature babies. Practically this is just what is accomplished by the neutralization of the buffer substance in cow's milk.

How to Remove Buffer Substance

The inorganic salts (buffer substance) can be neutralized by acidifying the cow's milk. Cow's milk can be acidified in three ways: 1. The natural way of allowing milk to sour—lactic acid germs from the air deposit themselves in the milk and, acting on the sugar in the milk produce lactic acid. 2. Culturing cow's milk with lactic acid bacilli, such as lactic acid *bulgaricus* cultures, lactone tablets, etc., and incubating them a varying length of time. 3. Adding to cool, or cold, cow's milk, lactic acid U. S. P. (75 to 80 per cent) in the proportion of one teaspoonful (60 drops) to each

pint. It is important in adding lactic acid to cow's milk that the milk be cool, or cold, also that the lactic acid be added drop by drop, gently stirring the milk all the while. If this procedure be neglected large lumps of curds will form which will make the milk unfit for use. Faber, of San Francisco, advocates the use of one-tenth normal hydrochloric acid in acidifying the milk, the proportion used is one ounce of tenth normal hydrochloric acid to each four ounces of milk. He claims for this procedure that the milk is more palatable than when made with lactic acid. He, however, forgets the fact that acidifying cow's milk with hydrochloric acid requires a relatively large amount of hydrochloric acid to be ingested by the infant. This amount of hydrochloric acid might easily disturb the acid-base equilibrium of the baby's bodily fluids and tissues, also hydrochloric acid is not burnt up in the system, as is the case with lactic acid, and therefore throws an unnecessary strain on the eliminative organs, especially the kidneys. For this reason lactic acid is the acid of choice used by those feeding acidified milk to babies.

How to Make Lactic Acid Milk With Karo Syrup

Thoroughly shake one quart or one pint of fresh cow's milk, for the purpose of well mixing the cream with the milk. Boil for five minutes the amount of milk needed in the formula, in order to sterilize the milk. Put the milk on ice until it is cold—milk must be cold when lactic acid is added. Remove the scum from the milk. Add enough boiled water to take the place of water evaporated whilst boiling, so as to finish with the amount of milk with which you began. Slowly add, drop by drop, one teaspoonful (60 drops) of lactic acid for each 16 ounces of milk in formula. Gently stir milk while adding lactic acid. Thoroughly dissolve in the milk two level tablespoonfuls of Karo syrup (Blue Label) for each pint of milk in formula. More Karo syrup may be used for the average baby if digested. Divide the formula into the desired number of feedings, with requisite

amount in each bottle. Keep on ice and warm to blood heat as needed.

Acidified milk with lactic acid, U. S. P. has the advantage of carrying a definite acidity (P. H. 3.75). Breast milk removed from a healthy baby's stomach two hours after nursing, which is supposed to represent the ideal acidity at the height of digestion, has been found to carry an acidity of P. H. 3.75. Therefore, artificial buttermilk made by the addition of lactic acid U. S. P. has the advantage of carrying a definite acidity, while buttermilk made by nature's process, or by inoculation of the milk with lactic acid bacilli, has a decidedly varying degree of acidity. Therefore, artificially made buttermilk is the one of choice in making acidified milk for babies.

WHY USE KARO SYRUP? Because it is chiefly corn syrup, containing dextrin 55 per cent, maltose 30 per cent, glucose 15 per cent. One ounce of Karo by volume (2 tablespoonfuls) is equivalent to one ounce of sugar. The calorie value is 120 an ounce, or 60 calories for each level tablespoonful. It is the most difficult of the sugars to ferment, therefore less likely to cause diarrhea. It is better tolerated by the infant's digestive organs than are the other sugars, and is more easily assimilated. Dextri-maltose is very similar in composition to Karo syrup (Blue Label), but somewhat more expensive.

Karo syrup is added to acidified milk because sugar in cow's milk is low (4.75 per cent) compared to mother's milk (7.50 per cent). Nature shows us, by an analysis of mother's milk, that babies digest sugar quite easily, and physiology teaches us that it is the chief ingredient that fattens babies.

CALORIC VALUE. The caloric value of acidified cow's milk, with two level tablespoonfuls of Karo syrup (Blue Label) added to each pint equals 27.5 calories per ounce. Mother's milk contains 20 calories to the ounce. Therefore acidified milk with Karo syrup is a more concentrated and a

higher caloric value feeding than is mother's milk.

DIGESTIBILITY. After an extensive trial it is my conviction that acidified milk with Karo syrup is practically as digestible as mother's milk. Newly born babies have no trouble in digesting it, they thrive in a natural and healthy manner, and will gain in weight similar to breast fed babies. I have at present, at the Children's Hospital, a premature seven months baby weighing three pounds. He is taking lactic acid milk with Karo syrup and digesting it perfectly, and is thriving normally. This case is an ideal one with which to test out the digestibility of this feeding, for not infrequently mother's milk has to be diluted with water in the feeding of such cases.

SCOPE OF USEFULNESS. Lactic acid milk with Karo syrup can be beneficially fed to sick babies the same as to well babies. It is especially helpful in malnourished and marantic babies, for the reason that it is easily assimilated and is of high caloric value. It is an ideal food to give as an additional food (complemental feeding) when mother's milk is not wholly sufficient. It is the feeding of choice when strictly artificial feeding has to be practiced. Owing to its inhibitory action on the growth of bacteria it is an especially good summer feeding. Lactic acid milk has been inoculated with bacilli dysenteriae, and in 24 hours no growth could be recovered. Babies fed on acidified milk with Karo syrup, that develop ileocolitis or diarrhea can be more successfully treated. In such cases if the Karo syrup is left out of the formula and instead dry protein milk (Casec) is substituted, the frequency of stools will gradually diminish and the baby will continue to be fairly well nourished.

CONTRA-INDICATION. As yet no contra-indications to the use of lactic acid milk are known. Some babies do not like sour milk, but if the food is offered regularly the pangs of hunger quickly overcome this difficulty.

Results

The value of all methods of infant feeding should be gauged by the results obtained. W. McKim Marriott of St. Louis, Mo., a medical genius who is giving to the world today the leading thought in pediatrics, is the father of this method of feeding. He has, for the last two years, fed 90 per cent of all babies received in the wards of St. Louis Children's Hospital with lactic acid milk and Karo syrup. His cases were not selected, but were the usual run of difficult feeding cases, and babies ill with various infections, premature babies were also included in his study. With the entire group the average daily gain in weight was 28 gm. (9-10 oz). When we consider that the average gain in weight for the normally thriving breast-fed baby is one ounce daily, it gives us an idea of the brilliant results obtained by him, with this feeding, with these ill babies. Just as striking were his results with his marantic babies. In 1919 his mortality with morantic babies was 78 per cent, last year it was 26 per cent.

Personally I have tried acidified milk with corn syrup in private practice, hospital service, out-patient clinic, and preventive pediatric clinic, and my results have been similar to those obtained by Marriott. I feel justified in recommending to the profession this newer method of artificially feeding infants. The principle on which it is based is a logical and sensible one. The method is simple and more fool-proof than previous ones. It is an easily digested, concentrated and high-caloric value feeding. In my humble opinion it has come to stay, for it is a godsend to the physicians and a lifesaver for the babies. It will simplify many of your problems in infant feeding. I feel assured a thorough trial will yield you the same good results it has given to those who are using it.

MODIFIED BREAST MILK*

W. L. Funkhouser, M. D.,
Atlanta, Ga.

Infant feeding is the science of adjusting food; i. e., fat, protein, carbohydrate and salts to the digestive function of each individual baby, bearing in mind the caloric requirement of the baby and the vitamin content of the food. This is usually sufficiently cared for in the average normal breast fed baby. Failure to thrive on the breast is too frequently the cause of the baby being placed on a bottle of some patented food or modified cow's milk.

Modified milk is the addition of anything to milk, even water. This is true, be it cow's milk or breast milk. Cow's milk while the best substitute for breast milk was not intended to furnish nutriment to the young of the human, but to make beef out of calves; goats milk, the next best substitute, to make goats out of kids and the various too often used proprietary or patent foods, to declare dividends.

My appeal is to modify mother's milk to the digestive ability of the baby, rather than trying to adjust any substitute.

Sedgwick and his co-workers have proven that we may assume as a rule, that all mothers can nurse their offspring; that the assumption, too frequently current, that mother's milk is a poison, is a fallacy. As a proof substantiating their contention, an investigation of the wives of a number of physicians in the United States showed that 80 per cent nursed their babies three months or longer.

Of course, it is true, that mother's milk does not always agree with the baby, but this is usually temporary. Even so, is it not easier to adjust mother's milk, modifying it, as it were, to the digestive function of the baby, rather than cow's milk, goat's milk or any other food? There may occasionally be an idiosyncrasy to mother's milk

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

but it is so rare that it may be considered negligible.

The first step toward solving our breast-feeding problem is to weigh the baby before and at intervals during nursing. In this way we take stock as to the quantity obtained at a feeding. The weighing must be done on balance scales, not the spring scale. The scale should weigh at least in ounces. One estimate will be merely a hint, as we must remember, that the baby is an individual, consuming more food at one feeding than at another. Also, he may not want to nurse in a strange environment, the office. Again a mother may have more milk at one nursing than at another. It may therefore be necessary to weigh at every feeding for a day and at home, to get the accurate data. From this procedure, we may find that the baby is getting his milk too fast, is getting too much or not enough. If it is found that his intake is beyond his capacity, shortening the time spent at the breast is advisable, and only one breast should be given at a nursing. If the milk flows too rapidly, the baby getting more the first five minutes, then he should get the entire feeding. He should be required to nurse more slowly. This is accomplished by elevating the arm upon which the baby is lying, thereby changing the angle of flow of milk from the breast, or by having the mother lie down to nurse or by holding back the milk, which is done by placing a finger on each side the nipple and making slight pressure. Care must be taken to empty manually if the baby fails to utilize the entire supply or nature may reduce the quantity, possibly causing a loss of the breast milk.

If the amount received at a nursing is not sufficient, the baby should be allowed to empty both breasts at each nursing. This is usually successfully done in ten minutes. Then fill in with a feeding of a milk mixture, a so-called complemental feeding. This complemental feeding may be only a temporary measure, for when the breasts are

entirely emptied at regular intervals nature usually answers the stimulation by increasing the output. This is especially true, if all measures to increase the milk supply and to obtain a proper mental attitude toward normal, are stressed. We know of no galactagogues other than good food, fresh air, sufficient exercise without fatigue, wholesome diversion and a mental poise.

Examination of the milk may show a variation from the normal in fat or protein. Talbot has proven that there is little or no change in the percentage composition of the sugar. In fact very little weight need be given to the percentage findings, as the chance of error is great. If the estimation corroborates the clinical symptoms, steps may be taken to correct. For instance, if the fat content is abnormally high, and the baby is vomiting a sour curdy material, and there are many fat curds found in the stool, water may be given before nursing and the feeding interval may be lengthened. Diet is thought to have very little, if any, influence on the percentage composition of mother's milk, but insufficient exercise and nervousness are factors. It is necessary, therefore, to study the habits and environments of the mother, adjusting any abnormality found.

The diet of the mother should be considered in order that she may be fed a sufficient amount of a well-balanced ration. Rickets has been seen to develop on a breast milk from a healthy mother as the results of a deficiency in her food; likewise the failure of the baby to thrive may be traced to the diet of the mother. Another factor of importance is to see that she is not over-fed or too frequently fed. Sedgwick most aptly said, a nursing mother should eat what agrees with her husband, that being a substantial amount of a well-balanced diet she has been accustomed to.

Too frequently the baby is taken off the breast because the milk does not "agree," meaning certain symptoms are present referable to the gastro-intestinal tract. In

considering these symptoms. colic is probably the most harassing. This usually occurs late in the afternoon. The causes most predominant, in my experience, are the mental worry of the mother, and the insufficient amount of milk of a very high fat content. The last nursing after a trying day, is not sufficient in quantity and is quite concentrated. To relieve this condition, a complemental feeding of a mixture low in fat, such as a skim milk mixture or a solution of calcium caseinate is given after nursing. For the best results in all procedures secure the mental rest of the mother.

Vomiting is usually due to the food being taken too rapidly or an amount consumed beyond the anatomical or physiological capacity of the baby's stomach. Regulation, as before mentioned, with instructions not to jostle or rock the baby, gives prompt relief unless of course, there is either a pyloric stenosis or pylerospasm.

Loose stools, curdy, containing mucus, green in color, the baby not gaining and fussy, are positive proof in the lay mind that the milk is poisoning the baby. "There is no use to see the doctor, take the baby off the breast and put him on anything." There may be various causes responsible for this condition, but the most common is, that the baby is fed at too short intervals, resulting as it does in a milk too high in fat, producing a fatty diarrhea. The food not remaining in the intestinal canal long enough to be absorbed, there is a loss of weight and a corresponding hunger. If there is no loss of weight but a consistent gain, the baby happy and contented, frequent stools need cause no alarm. The institution of a longer interval of nursing, and a shorter time at the breast with such adjustments of the habits of mother and child as are faulty, usually rapidly establishes normalcy.

Many infants who do not suffer from too frequent stools are constipated. Here

again the mother's mind has been poisoned by the pre-conceived ideas, as to the number of stools there should be a day. One is hardly enough, three are too many. A happy, contented, satisfied, growing baby with a soft, smooth, lemon yellow stool every other day is normal. A failure on the part of the mother to appreciate this, is the starting point of bad health habits; also the abuse of drugs, none of which were ever known to cure constipation. Sufficient food, the formation of the stool habit, with the use of such local measures as will secure a stool, will establish normal bowel function. The spastic sphincter muscle of the rectum a common cause of constipation in the real young, can be relaxed with the slightest irritation, affording a nice normal stool. While drugs may be an adjunct at the beginning, they should be only a temporary measure to be discontinued at the earliest possible moment.

There are mothers with the weighing habit, which is as much of a nuisance and source of worry to all concerned as the temperature habit, and is frequently the cause of tampering with breast feeding. A gain above the average is heralded with delight, a failure to gain saddens the home, and a loss causes a stampede. The weight is a valuable guide to progress, but should not be estimated more often than once a week, except by orders from the doctor for special reasons. Weighing should be at the same time of the day, before feeding and preferably after a bowel movement. An abnormal increase should be averaged with next week's weight if there was no increase or if there registered a loss. If, however, there has been a stationary weight for two or three weeks or a loss, an investigation is necessary. This is usually corrected by an increase in the food. Usually between the fourth and eighth month, there is required an addition of a carbohydrate to the diet, which will usually cause the weight to increase normally.

While the psychology of breast feeding is not directly related to the modification of

breast milk, yet often the psychological aspect influences the success or failure of maternal nursing. A neurotic mother in a nervous environment will so disturb her milk that the baby with an inherited unstable nervous system, suffers with colic or indigestion. This further disturbs the mother producing as it were a vicious circle. There are frequently symptoms referable to the digestive system, so the baby is thoughtlessly weaned. Rather than resorting to another food, a careful study and correction of the various factors entering into the mother's reaction toward her baby, her environment and her entire attitude toward life, will produce marvelous results. She must first be made to have confidence in her ability to nurse her baby, confidence in her physician to successfully care for her and her baby. Substituting for apprehension and anxiety, confidence and contentment will usually produce an ample supply of normal milk and this will give a happy thriving baby.

Conclusions. It is more rational to try every available method of modifying or adjusting mother's milk to the digestive tolerance and capacity of the baby, rather than the immediate weaning, causing the substitution of a food the elements of which are foreign to the delicate digestive organs of the average baby.

SOME PROBLEMS OF THE SLOWLY CONVALESCENT OR HALF- SICK CHILD*

R. L. Miller, M. D.

Waynesboro, Ga.

Possibly in no branch of medicine have greater strides been made than in treating diseases of children. The slogan today is for better and healthier children in Georgia. Any child that fails to make a rapid convalescence should be a source of grave concern to the physician. It is admittedly the part of nature to work a rapid and complete recovery in every instance, and it will

do so unless there is some hindrance. This effort of nature is decidedly more marked in the young than in the old. Every child tends to recuperate more rapidly than the adult and will do so if all hindrances are removed.

So it is with the hope that we general practitioners in the rural districts may be aroused to the urgent necessity of seeking for and removing the cause in every case of delayed convalescence or in those cases of the half-sick child, that this paper is presented. I shall not endeavor to go into details as to the many conditions that are responsible for the half-sick child nor the causes of delayed convalescence. I shall content myself to touch only upon a few of them.

Removal of Diseased Tonsils and Adenoids

The first thing that I wish to call your attention to is the great disappointment to both the physician and the family that many children do not make the rapid recovery and gain in health that we have expected from the removal of diseased tonsils and adenoids. To a very great extent I think this is due to the fact that both the family physician and the operator fail to place due importance upon the gravity of the operation. To an already weak child both the taking of an anaesthetic and the operation is a distinct shock, as much so as a more serious operation would be to an adult. There still remains a wound to the tissues of the posterior nares denuded and uncovered as well as the open wound in the throat. I believe that these children will do far better if we will keep them for a longer time in the hospital and give more attention to these wounds. I am firmly convinced that in this way we will meet with fewer disappointments in this class of patients.

Acute Exanthemata

Another class of cases that should demand more careful attention than is ordinarily given them are the acute exanthemata. All children having suffered especially from scarlet fever or measles should

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

be followed up until they have made a complete recovery. It is a well known fact that following these diseases there are many sequelae that if taken in time can be successfully and effectively treated. The child properly cared for usually makes a rapid and complete recovery, while if neglected not only will a slow convalescence follow but a permanent damage may be the result. The cardiac and renal complications of scarlet fever are too well and firmly impressed on the mind of every physician to require any consideration in this paper. Fortunately every physician is thoroughly awake to these.

Otitis is a very frequent cause of delayed convalescence following the exanthemata. In cases of otitis media following scarlet fever and measles all of the subjective symptoms are oft times absent and the true condition is frequently overlooked until rupture of the tympanum occurs. This condition should be among the first looked for in delayed convalescence following scarlet fever and measles. If there be any doubt on the part of the attending physician some one skilled in otoscopy should be called in to establish the true condition.

Both physician and parents have regarded measles too lightly. Quoting Kerley, "Having been through many epidemics of measles in children's institutions, and having seen many cases in private and complicated cases in consultation, I am convinced that in this disease we have an illness which should inspire much greater respect on the part of the physician and demand the highest intelligence on the part of both physician and the family in order that it be managed to the best interest of the patient." The catarrhal condition of the bronchi produced by measles open up a fertile field for the development of pulmonary diseases. But it is especially the development of tuberculosis following measles that I wish to call your attention. Holt says "The relation of measles to tuberculosis seems to be particularly close. In some cases general or pulmonary tuberculosis follows directly in

the wake of measles. which seems to furnish, especially in the lungs, conditions which are favorable for the development of latent tuberculosis. As a late manifestation the most common one is tuberculosis of the bones, occurring as hip-joint disease, caries of the spine, etc." Corlett says "The most frequent complication, pneumonia excepted, has been shown to be tuberculosis. When this disease already exists in a latent state it is almost certain of assuming an active if not rapidly fatal form during an attack of measles." What has been so aptly said as to the development of diseases of the lungs may with equal truth be said as to the occurrence of trouble in the digestive tract. It is a well known fact that the entire digestive tract together with its lymphatics are always involved in the severe forms of measles. This condition may and often does linger for days retarding convalescence. While in other cases after convalescence has begun there suddenly appears a muco-purulent diarrhoea, which with suitable diet and treatment is generally controlled, but which is a decided factor in prolonging convalescence. In this condition unless active remedial measures are promptly instituted these children become rapidly exhausted and die.

Pyelitis

Pyelitis is a disease of frequent occurrence in infancy and childhood and is a frequent cause of the half-sick child as well as a result of other diseases. Many cases whether primary or secondary to other diseases run irregular courses without any definite symptoms pointing to the kidney. Many children especially in the rural sections are delicate, having from time to time periods of indisposition with irregular fever of from twelve to twenty-four hours duration and these are often attributed to improper feeding, malaria and other causes while they are due to pyelitis. These children apparently between attacks are normal save for the fact that they do not make the ordinary growth and gain in weight that the normal child should do. Pyelitis appears

in three forms, the primary acute, the secondary and the sub-acute or chronic. It is not the purpose of the writer to discuss the primary acute form with its chain of classical symptoms of chill, fever marked prostration and the finding of pus in the urine. But it is the secondary or chronic form that we desire to consider which occurs without any of the classical symptoms so characteristic of the disease. Cases of pyelitis undoubtedly occur without any manifestation of fever, which run on for a long time having only been confounded with other diseases of infancy and childhood. These children are allowed by their parents to go in this condition until finally they exhaust the whole armamentarium of the usual household remedies as well as that of the wise grannies and grandmas of the neighborhood. Finally they are brought to the physician with a symptom complex that means absolutely nothing to him and unless he bears in mind the fact that pyelitis may be a possible cause of the condition and has examined a specimen of the urine he is most likely to overlook the condition. Of course the only positive proof is the finding of pus in the urine. But this is often difficult for in many of these cases its presence is only transitory. In the vast majority of cases there is the highly suggestive history that some time preceding these attacks of irregular intervals there has been an acute illness. In every such case it is imperative that the physician obtain a specimen of urine for microscopical examination, because until he has done this he cannot consider himself master of the situation. It is often a difficult matter to obtain a specimen of an infant's urine, but under no circumstances should he allow this difficulty to head him off. A Chapin's urine collector, a large mouth bottle fastened over the vulva or an oiled cloth rolled up and the baby laid on it will with patience furnish the specimen. In case all of these means fail we still can obtain a specimen by use of the catheter. It must be borne in mind that

often in obtaining a specimen by the use of the catheter, the first urine may be clear while the last will contain pus owing to the fact that pus sinks to the bottom.

Conclusions

1st. That children who have had their tonsils and adenoids removed should remain for a longer time in the hospital and that more attention should be paid to the condition in the posterior nares and throat than we are accustomed to giving them.

2nd. That we should follow up more closely children who have suffered from the acute exanthemata, especially looking for early tubercular trouble.

3rd. That otitis is of more frequent occurrence especially following the acute exanthemata than we formerly were taught to believe.

4th. That pyelitis is of frequent occurrence in children and that it is often the cause of what we may term, for the want of a better name, the half-sick child.

5th. That in cases of obscure origin the physician can not truly consider himself master of the situation until he has had otoscopic examination of the ear and microscopic examination of the urine made.

THE THYMUS GLAND IN INFANCY AND CHILDHOOD*

A. J. Waring, M. D.,
Savannah

This paper is an effort to present clearly and concisely certain definite and important observations in regard to the Thymus Gland in children. The discussion is intended for the thoughtful clinician, not the studious laboratory worker.

BIOLOGY. The Thymus Gland in the embryo develops from the pharynx, but eventually locates some distance from its source. The medulla—of epithelial origin cut or constant, however, in the hands of investigators comparable to the well-recog-

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

nized experimental and clinical data on the gin—consist of lymphatic tissue. The medulla is, what Dercum calls, the fixed portion of the gland. The cortex is a migratory group of lymphoid cells, varying in mass according to general hypo—or hyperplasia. In this connection it is important to note that probably Hassell's Corpuscles are present for years (though more or less atrophy takes place at puberty), and, therefore, the Thymus Gland may be active far later in life than is generally supposed. The lymphoid cortex rapidly involutes as the child grows older, in accordance with the normal diminution of lymphoid tissue. The cortex also to a large extent dictates the size of the gland. This explains a persisting enlargement in status thymico-lymphaticus, and various diseases such as syphilis and the acute infections, diseases wherein a lymphatic hyperplasia usually takes place. A compensatory or unchecked growth possibly takes place in Frohlich's Syndrome, Addison's Disease, or Grave's Disease. Roughly speaking, any thymus in a young child over fifteen grams in weight, is too large. Though statistics vary, there seems to be a gradual enlargement through the second year to a weight of ten grams or over, little or no change to puberty, then a gradual diminution to one gram in senescence. The gland's anatomical position has been carefully noted in infants (Noback). It is usually cervico-thoracic, extending laterally, partially overlapped by the lungs, and partially overlapping the right ventricle of the heart. The fetal thymus is broad, the neo-natal elongate.

FUNCTION: Passing to a brief discussion of function no internal secretion has ever been clearly demonstrated. Glandular extirpation in young animals seems to produce the picture of rickets, with debility and fragile bones. (Dercum.) Rabbits thus treated lose weight, and there is a lack of development in ovaries and testicles (Lereboullet). There is nothing clean—consists of a reticulum in which lie groups of cells called Hassall's Corpuscles. On the

other hand, the cortex—of mesodermal origin—Thyroid Gland. There is a hinterland in the thymus country still open to all eager explorers. A few general facts, however, may be generally accepted. The endocrine glands all possess more than one function, and in their various fields of activity are closely related. In the normal human being there is an unexcelled balance and play of forces in the endocrine system that truly dictate not only what we are physically, but also what we are mentally. The investigations of the past ten years have emphasized the importance of the thymus gland in the growth of man, adding to the initial pioneer work of Paltauf in 1889, and Escherich in 1906.

In concluding this brief portion of my paper, that, of necessity omits much that is both interesting and argumentative, the following points are emphasized:

1. The active portion of the thymus gland lies in the region of Hassell's corpuses, and probably persists into adult life.
2. Its anatomical position is cervico-thoracic, and lateral rather than antero-posterior. Its weight should not be over ten grams.
3. No internal secretion has been definitely isolated.
4. In a discussion of its hyperplasia one must not lose sight of its relation to other endocrine glands.

SYMPTOMATOLOGY: Recognizing, therefore, these facts, a brief clinical discussion is in order. Here we stand on firmer ground. Whether the symptomatology is the result of pressure from an enlarged organ (Pfahler, Exchaquet), or the demonstration of a thymic toxin (Dercum), is a matter of open but possibly academic discussion. In infants we notice aphonia, or a crowing cry, noisy nursing, a tendency to cyanosis on extending the head or crying, unexplained cough, and attacks of dyspnoea, largely inspiratory. In older children there is a suggestive, but not constant type—a dull, lethargic, heavy child, with soft tissues, suspiciously broad or globular shadow superimposed upon the heart. It is fair to state in

this connection that certain cases, clinically general lymphatic hyperplasia. Lastly there is the so-called Thymic Death. It may occur during anaesthesia, lumbar puncture, a mild convulsion, or even suddenly without definite excitation. Attention was early drawn to the fact that on post-mortem examination many of these children revealed thymic and lymphatic hyperplasia.

Case Report

Baby R.—Three months old. Breast-fed. large, ruddy, well-developed. Short neck. A picture of embarrassed respiration with both inspiratory and expiratory dyspnoea. Color good. On examination profuse coarse rales over both lungs. Temperature, 100. Other findings non-pathological.

History: Uneventful until two weeks before my first visit, when it apparently developed a cold with cough, wheezing and fever for three or four days. A maculo-papular eruption on the fourth day suggested a diagnosis of measles to the attending physician. The fever subsided but the asthmatic type of respiration continued with occasional severe exacerbations, and alarming attacks of cyanosis.

A provisional diagnosis of acute spasmodic laryngitis was made. X-ray, however, revealed an enlarged thymus gland. After the first treatment with radium marked improvement was noted in twelve hours. There was a slight relapse in two weeks, and a second radiation was given at the end of one month followed by complete recovery.

Diagnosis: In differential diagnosis one has to consider at times papilloma of the larynx, foreign body, laryngeal diphtheria, acute spasmodic laryngitis, true bronchial asthma, congenital laryngeal stridor, laryngismus stridulus, etc. In a discussion of unexpected death Glynn and Dun call attention to the fact that in four detailed cases post-mortem study revealed non-thymic causes.

A correct diagnosis, however, can usually be made with the X-ray, which reveals an tible to infections, and prone to eczema and blepharitis. There are often present varying degrees of rickets or tetany. Always there is

definite, reveal no shadow, and that many children with thymic enlargement on X-ray are apparently normal in every respect. Detection of an enlarged gland by percussion—a threshold approach—is not an altogether satisfactory procedure.

Treatment: The treatment is simple, but most effective—X-ray or radium. I prefer Radium for reasons well stated by Pfahler: 1. No electrical danger. 2. No struggling on the part of the child. 3. More accurate radiation. 4. Treatments can be given at home. 5. One treatment is usually sufficient.

Dr. Robert Drane, who treats my cases, uses the following technique: Two twenty-five milligram radium tubes, with .5mm. silver screen, and a $\frac{3}{4}$ -in. gauze bandage placed on end. Exposures on four quadrants, six hours each. The Radium is covered with lead to protect the chin. This is smaller than the usual dosage.

In conclusion the following points are worthy of consideration. When we find an enlarged thymus without unpleasant symptomatology, shall we give treatment in order to avoid a possible future thymico-lymphatic diathesis, or thymic death? This has been done by Blackfan and others. Over-radiation of an exophthalmic goitre may produce myxoedema, but we possess a valuable check on the basal metabolism rate. Can we damage body economy by over-radiation of the thymus gland?

Resume

1. The thymus gland is an endocrine gland of definite power prolonged into the adolescent period, and in synergy with, or antagonism to, other endocrine glands.

2. Though its enlargement may be due to various causes, in infancy and childhood, this enlargement produces a fairly constant symptomatology.

3. In the so-called thymico-lymphatic child all unpleasant and visible disturbances are immediately and effectively removed by X-ray or Radium therapy.

References:

- Overley: The treatment of the Diseases of Children.
Holt: Diseases of Infancy and Childhood.
Corlett: The Exanthemata.
The Symposium on Diseases of Children will be continued in the August Issue. All discussions will follow the last paper of the symposium.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

LYE LEGISLATION IN GEORGIA

At the recent meeting of the Association in Augusta the following resolution was unanimously adopted:

"WHEREAS, The domestic use of concentrated lye and other caustic alkalies and of corrosive acids, in ignorance of their dangerous properties and treatment in case of accident, is a not infrequent cause of death and of prolonged, distressing and incurable disability, particularly among children; and

"WHEREAS, In the judgment of this house the adoption of suitable methods of packing, labeling and distributing such substances would materially diminish the danger; and

"WHEREAS, Effects to bring about the adoption of such methods by the voluntary action of manufacturers and distributors have given no prospect of success, be it

"RESOLVED, That it is the sense of the House of Delegates of the Medical Association of Georgia in convention assembled,

that in the interest of public health and safety, the packing, labeling and other distribution of concentrated lye and of other caustic alkalies and of corrosive acids should be regulated by law; and be it

"RESOLVED, further, That the Committee on Public Policy and Legislation be instructed to take such action as may be necessary to effect such regulations."

In a report of the committee on lye legislation to the section on laryngology, otology and rhinology of the American Medical Association¹ Dr. Woodward states: "I have found the manufacturers of caustic acid and alkali preparations unresponsive, except one, who pretends to believe that there is no more need for legislation safeguarding the distribution of concentrated lye for household use than for legislation safeguarding the distribution of window glass or of a certain brand of condensed soups. One might cut one's hand in opening a can containing such soup, says my correspondent—and, therefore, a danger label is as much needed on a can of soup as on a can of lye." The same argument might be advanced in reference to material sold by druggists, yet the druggist is required to use the "Poison" label freely.

Pennsylvania and Florida have already passed laws requiring the proper labeling of caustic acid and alkali preparations. In an excellent article on lye legislation in Florida, Dr. H. Marshall Taylor², who has given us much valuable help, states that "The humane side of the lye matter is the particular phase which has interested medical men throughout our nation. However, the economics of this question is also of tremendous importance. The annual cost to the state of the hospitalization of children poisoned with lye has to be reckoned with as well as the care of such a large number who are made invalids for life and who are incapacitated for self-support."

We are publishing in this issue a copy of the model caustic acid or alkali act as prepared by Dr. William C. Woodward, Exec-

utive Secretary, Bureau of Legal Medicine of the A. M. A. We expect the earnest cooperation of every member of the Association to the end that this act may be passed by this session of the Legislature.

1. Report of committee on lye legislation to the section on laryngology, otology and rhinology. *Jour. A. M. A.*, Vol. 81, p. 2033, Dec. 15, 1923.
2. Taylor, H. Marshall: Lye legislation in Florida. *Jour. Fla. Med. Assn.*, Vol. 10, No. 5, p. 126, Nov. 1923.

NATIONAL BOARD OF MEDICAL EXAMINERS

The National Board of Medical Examiners, of which Major-General Merritt W. Ireland, Surgeon-General of the Army, is President, was organized in 1915 to establish a standard qualifying examination of such character that its certificate of qualifications to practice medicine would be accepted by medical licensing boards in all States, and the holder of this certificate be granted a license to practice without further examination. To date, its certificate is accepted by 28 States, and by some foreign countries. The States which now accept the certificates are: Alabama, Arizona, Colorado, Delaware, Georgia, Idaho, Illinois, Iowa, Kentucky, Maine, Massachusetts, Maryland, Minnesota, Mississippi, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, and Washington. Several others will accept it as soon as legal obstacles can be removed.

In Great Britain the certificate is accepted by the Conjoint Examining Board of the Royal College of Physicians of London, and the Royal College of Surgeons of England, and by the Board of the Royal Faculty of Physicians and Surgeons of Glasgow.

The Board aims not only to safeguard and simplify the determination of those who are qualified to practice medicine, but to aid the medical colleges and the various

State authorities in promoting high standards of medical education and practice. The Board's examination which is divided into three parts to be taken at intervals extended over a three year period, together with its plan of identification and the limiting of its candidates to students from Class A schools, makes it impossible for unqualified candidates to secure its certificates and it is therefore a help to State Boards in keeping out unqualified practitioners.

This Board was founded by the late Dr. W. L. Rodman, of Philadelphia, whose son, Dr. J. S. Rodman, is now Secretary of the Board. The late Major-General William C. Gorgas, M. D., was a charter member of the Board, and Rear Admiral W. C. Braisted was its first President, serving until he retired from the Medical Corps of the Navy in 1921.

PROPOSED GEORGIA CAUSTIC ALKALI OR ACID ACT*

A BILL to safeguard the distribution and sale of certain dangerous caustic or corrosive acids, alkalis, and other substances in the State of Georgia.

Be it enacted by the Legislature of the State of Georgia:

That in this act, unless the content or subject-matter otherwise requires.

A. The term "dangerous caustic or corrosive substances" means each and all of the acids, alkalis, and substances named below:

(a) Hydrochloric acid and any preparation containing free or chemically unneutralized hydrochloric acid (HCL) in a concentration of ten per centum or more;

(b) Sulphuric acid and any preparation containing free or chemically unneutralized sulphuric acid (H_2SO_4) in a concentration of ten per centum or more;

(c) Nitric acid or any preparation containing free or chemically unneutralized

CARY A. HARDEE
GOVERNOR

L. B. EDWARDS
SECRETARY



STATE OF FLORIDA
EXECUTIVE DEPARTMENT
TALLAHASSEE

October 9th, 1923.

Dr. H. Marshall Taylor,
Jacksonville, Florida.

Dear Dr. Taylor:

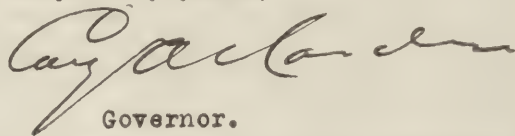
My attention has been called to an Act passed by the last Legislature requiring that preparations containing caustic alkalies should be labeled as to the name of the article, name and place of business of the manufacturer, seller or distributor of such household acids, alkalies or preparations thereof and in addition, the word "Poison" conspicuously placed on the label in red letters. This Act becomes effective on and after the first day of January, 1924.

The necessity for this legislation is quite apparent. There are numerous cases of children who unknowingly take caustic acids resulting in death or at most physical impairment for life. We would be recreant to the higher duties imposed upon us if we did not use every effort possible in preventing cases of this kind. The Act above referred to was passed by the Legislature in the hope that by proper labeling of caustic alkalies and all preparations containing the same should be very carefully guarded, thus preventing innocent children from becoming victims of its hurtful effects.

Under the law failure to comply with the provisions requiring proper label is punishable as a misdemeanor and I shall expect, of course, a literal compliance with the law when it becomes effective.

Thanking you for your interest in the subject and with personal regards, I am

Very truly yours,



Governor.

CAH/AB

Letter from the Governor of Florida to the President of the Florida Medical Association. In response to an appeal by a committee from the Florida Medical Association the House of Representatives and Senate unanimously passed the "Caustic Alkali" or "Lye" (potash)

bill on the second day after it was introduced. This is an evidence of the magnanimity of our law-makers towards humanitarian objects. (Cut loaned by Dr. H. Marshall Taylor)

nitric acid (HNO_3) in a concentration of five per centum or more;

(d) Carbolie acid, otherwise known as phenol, and any preparation containing carnitric acid (HNO_3) in a concentration of five per centum or more;

(e) Oxalic acid and any preparation containing free or chemically unneutralized oxalic acid ($\text{H}_2\text{C}_2\text{O}_4$) in a concentration of ten per centum or more;

(f) Any salt of oxalic acid and any preparation containing any such salt in a concentration of ten per centum or more;

(g) Acetic acid or any preparation containing free or chemically unneutralized acetic acid ($\text{HC}_2\text{H}_3\text{O}_2$) in a concentration of twenty per centum or more;

(h) Hypochlorous acid, either free or combined, including calx chlorinata, bleaching powder, chloride of lime, chlorinated soda, and chlorinated potash, and any preparation containing any of the aforesaid substances so as to yield a concentration of ten per centum or more of available chlorine;

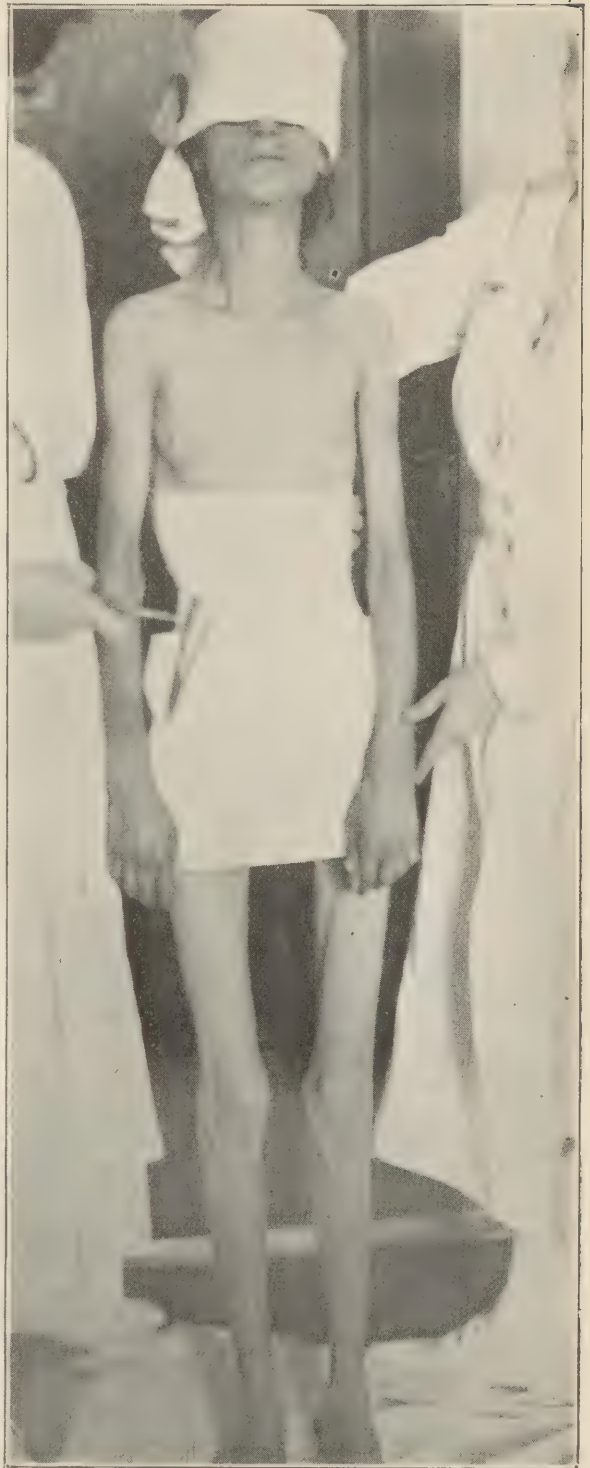
(i) Potassium hydroxide and any preparation containing free or chemically unneutralized potassium hydroxide (KOH), including caustic potash and Vienna paste, in a concentration of ten per centum or more;

(j) Sodium hydroxide and any preparation containing free or chemically unneutralized sodium hydroxide (NaOH), including caustic soda and lye, in a concentration of ten per centum or more;

(k) Silver nitrate, sometimes known as lunar caustic, and any preparation containing silver nitrate (AgNO_3) in a concentration of five per centum or more;

(l) Ammonia water and any preparation containing free or chemically uncombined ammonia (NH_3), including ammonium hydroxide and "Hartshorn," in a concentration of five per centum or more; and

(m) Any other alkali, acid, salt, or preparation thereof having caustic or corrosive properties equivalent to those of any of the alkalis, acids, salts, and preparations named above.



This girl drank some "lye" from an unlabeled can at the age of 14. She is now 16 and is 5 feet, one inch tall, but weighs only 58 pounds. She has been living on liquids but recently became unable even to swallow these and it was necessary to make an opening direct into her stomach to prevent her starving to death. (Courtesy of Dr. W. McL. Shaw)

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"Regard for the Public Welfare is the Highest Law"

AMERICAN WHOLESALE GROCERS' ASSOCIATION

407-412 CONSOLIDATED BUILDING

JACKSONVILLE, FLORIDA

October 23, 1923.

TO THE WHOLESALE GROCERS OF FLORIDA.

Gentlemen:

An Act to Regulate the Sale of "Lye".

I deem it of the greatest importance that your attention should be drawn at this time to the above Bill, passed at the last session of the Florida Legislature, which law becomes operative on January 1, 1924.

You will note this law requires, in short, that every package of lye sold in the State of Florida shall carry thereon a POISON label, in 24 point type - in RED capital letters.

A copy of the Bill is enclosed.

You will, I have no doubt, desire at this time to bring this Bill to the attention of the manufacturers from whom you are purchasing lye, potash, etc., in order that the labels on the product you will sell after January 1, 1924 shall conform with the provisions of the law.

I can conceive of no more important legislation than that embodied in this Act and am confident that all of our people as well as the manufacturers of lye themselves will prove most responsive to this effort of the authorities to safeguard the life and physical welfare of men, women and little children. As both an economic and humanitarian movement, it is to be hoped that every state in the Union and the Federal Government as well, will fall in line with the states that have already enacted this POISON WARNING law.

Respectfully submitted,

AMERICAN WHOLESALE GROCERS ASSOCIATION,

J. H. McLaurin,

President.

Read the above letter from the President of the American Wholesale Grocers' Association. The grocers have no objection to this legislation. It costs the State nothing. It merely requires the word "Poison"

in large capital letters on every package of "Lye" and therefore places no hardship on the lye manufacturers. (Courtesy of Dr. H. Marshall Taylor)

B. The term "misbranded parcel, package, or container" means a retail parcel, package, or container of any dangerous caustic or corrosive substance for household use, not bearing a conspicuous, easily legible label or sticker, containing

(a) The name of the article;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the word "POISON," running parallel with the main body of reading matter on said label or sticker, on a clear, plain background of a distinctly contrasting color, in uncondensed gothic capital letters, the letters to be not less than 24 point size unless there is on said label no other type so large, in which event the type shall be not smaller than the largest type on the label, and

(d) directions for treatment in case of accidental personal injury by any dangerous caustic or corrosive substance.

Section 2. No person shall, for sale, barter, or exchange, send or carry, or pack or hold with intent to send or carry, from the State of Georgia into any other State, or into any Territory, the District of Columbia, or any other place under the exclusive jurisdiction of the United States, any dangerous caustic or corrosive substance in a misbranded parcel, package, or container for household use;

Provided, that this section shall not apply to any regularly established common carrier in the ordinary course of its business; nor to the packing, holding for export, or exporting to a foreign country, of any dangerous caustic or corrosive substance in parcels, packages or containers for household use, branded in accordance with the specifications of the foreign purchaser, when not in conflict with the laws of said foreign country.

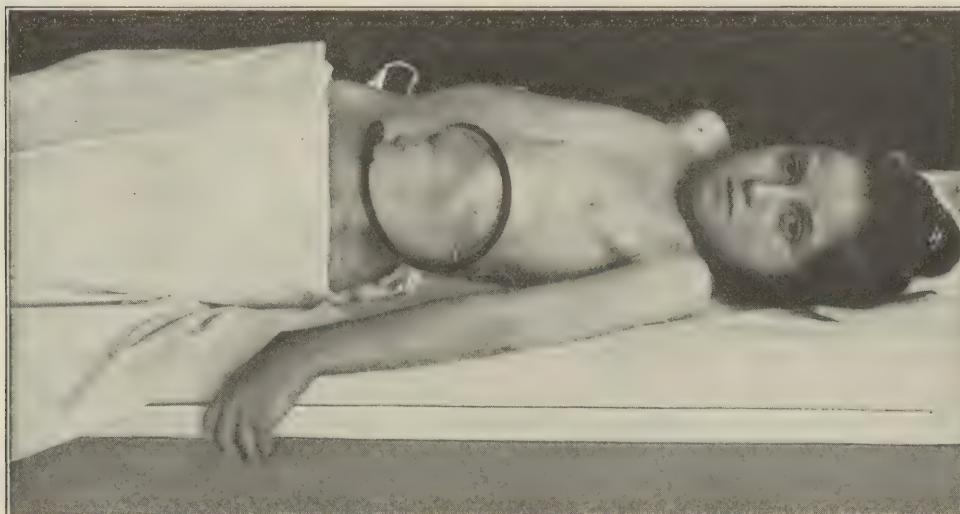
Section 3. No person shall, for sale, barter, or exchange, receive in the State of Georgia from any other State, or from any Territory, the District of Columbia, or any other place under the exclusive jurisdiction of the United States, any dangerous caustic

or corrosive substance in a misbranded parcel, package, or container for household use;

Provided, that this section shall not apply to any regularly established common carrier in the ordinary course of its business; nor to any broker receiving such substance in the ordinary course of his business, for export to a foreign country, in parcels, packages, or containers for household use, labeled in accordance with the specifications of the foreign purchaser, when not in conflict with the laws of the said foreign country.

Section 4. No person shall sell, barter, or exchange, or receive, hold, pack, display, or offer for sale, barter or exchange, in the State of Georgia any dangerous caustic or corrosive substance in a misbranded parcel, package, or container, said parcel, package, or container being designed for household use.

Section 5. Any dangerous caustic or corrosive substance in a misbranded parcel, package, or container for household use, that is being sold, bartered, or exchanged, or held, displayed, or offered for sale, barter, or exchange, or for shipment or carriage to a foreign country, or to any other State, or to any Territory, the District of Columbia, or any other place under the exclusive jurisdiction of the United States shall be liable to be proceeded against in any court having jurisdiction in condemnation procedures of like character within the jurisdiction of which the same is found, and seized for confiscation by process of libel; and if such substance is condemned as misbranded by said court, it shall be disposed of by destruction or sale, as the court may direct; and if sold, the proceeds less the actual costs and charges, shall be paid over to the proper State officer to receive such funds; but such substance shall not be sold contrary to the provisions of the laws of the State, provided, however, that upon the payment of the costs of such proceedings and the execution and delivery of a good and sufficient bond to the effect that such substance will not be unlawfully



No Soaking Beware of Imitations No Rubbing

DIRECTIONS.

For washing white clothes, flannels and colored clothes of fast colors fill boiler one-half full of cold water; dissolve one-third of an ordinary size bar of soap and put into it; add one teaspoonful of THE FLUID. Then put clothes in boiler and if they absorb sufficient water so that it does not run over then add more water. All the clothes should be submerged in water when boiler is placed on the stove. After water begins to boil allow it to boil 20 minutes, stirring clothes occasionally during the boiling process, then remove the clothes and rinse in two waters to take out all the soap. Examine the fabrics and they will be found clean and snow white, and ready to hang on the line to dry. In extreme cases, such as the neck and wrists of shirts it may sometimes be found necessary to rub these parts slightly between the hands, but for all ordinary articles no abrasion whatever is necessary, and no WASHBOARD is required. It will do no harm to put clothes in soak over night in clear water, but even this is unnecessary unless extremely soiled.

THE FLUID is free from lime or acids and cannot possibly injure the finest fabrics. It makes the hands soft and smooth. For the second boiler of clothes use the same water without adding more FLUID or soap, but before putting the clothes into it dip them into cold water. Dry clothes should never be put into boiling water, as it is liable to set any stains which may be on them. For house cleaning, washing floors, greasy dishes, paint, etc., pour a small quantity in water, and add a little soap. For washing windows and glass, use no soap. Use strictly according to directions and THE FLUID will do the work perfectly and save much hard labor.

THE FLUID is far superior to Ammonia and much cheaper.

CONTENTS OF THIS PACKAGE MAKES
TWO GALLONS OF WASHING FLUID

KLEANALL

Softens the water and has a most wonderful Cleansing and Bleaching Power, removes all Grease and Dirt and DOES NOT INJURE the finest fabric or the most Delicate Skin, if used according to directions.

PREPARED BY
KLEANALL MANUFACTURING COMPANY
HAVERHILL, MASS.

Net weight not less than 16 ounces

DIRECTIONS—Dissolve the contents of this Package in two gallons of water; shake well until it is dissolved and then follow directions on the other side of label. Keep the Fluid in a stone jug or crock. Form 55-52-11

(Top) This little child, when 2 years of age, drank of a solution of "Kleanall" Lye. Within four months after the accident she had lost considerable weight and was unable to swallow even liquids. Gastrostomy was necessary to provide food and water. This picture was taken about 14 months after the accident and the patient has again regained her former weight.

(Bottom) This child swallowed a teaspoonful of "Kleanall" Lye which had been left in a saucer. It was not known that this lye was poisonous, for nowhere on the label was there anything to show that it was poison. Read the label. (Courtesy of Dr. Louis H. Clerf, Bronchoscopic Clinic, Jefferson Hospital, Philadelphia. Pennsylvania was the first state to pass the "Lye" law.)

sold or otherwise disposed of, the court may by order direct that such substance be delivered to the owner thereof.

Section 6. Any person violating the provisions of this act shall upon conviction thereof be punished by a fine or not more than two hundred dollars, or by imprisonment for not more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

Section 7. Every proper prosecuting officer to whom there is presented, or who in any way procures, satisfactory evidence of any violation of the provisions of this act shall cause appropriate proceedings to be commenced and prosecuted in the proper courts, without delay, for the enforcement of the penalties as in such cases herein provided.

Section 8. This act may be cited as the "Georgia Caustic Alkali or Acid Act, of 1924."

Section 9. This act shall take effect on its enactment and approval by the Governor.

Section 10. That from and after the date when this act takes effect, all other acts contrary to and inconsistent with the provisions of this act be and the same hereby are repealed; but nothing herein contained shall be construed as modifying or interfering with the institution or continuance of any prosecution based upon any violation of law committed before the passage of this act, nor with the enforcement of the penalties provided for any such violation by any act hereby repealed.

*After model law prepared by Dr. William C. Woodward, Executive Secretary, Bureau of Legal Medicine, American Medical Association.

I have for sale a Spencer microscope, one folding operating table, a Therapeutic lamp and stand, instrument table, irrigating stand, medical books, etc.

Will be glad to describe and give prices to those interested.

MRS. J. T. KING,
Quitman, Ga.



Clayton Jones, from Ga'n'sville, Ga., has been fed through the opening into his stomach (gastrostomy) for two years. Note how well nourished he has become under appropriate treatment. (Courtesy Dr. Murdock Equen)

Criminal Negligence in the Labeling of Lye.—Murdock Equen, M. D., Atlanta, Ga.: The public must be educated to the fact that "Lye" is a poison and that much suffering and often times death could be prevented if it were made to appreciate this fact. The law requires that the Druggist, when selling poisonous drugs, label them accordingly, while the Grocer may sell lye, which is a corrosive poison, with no poison label, nor anything indicating its danger. On the other hand, to be found on lye labels are such misleading statements as—"will not harm the most delicate fabric nor hurt the hands." It may be thought by some that



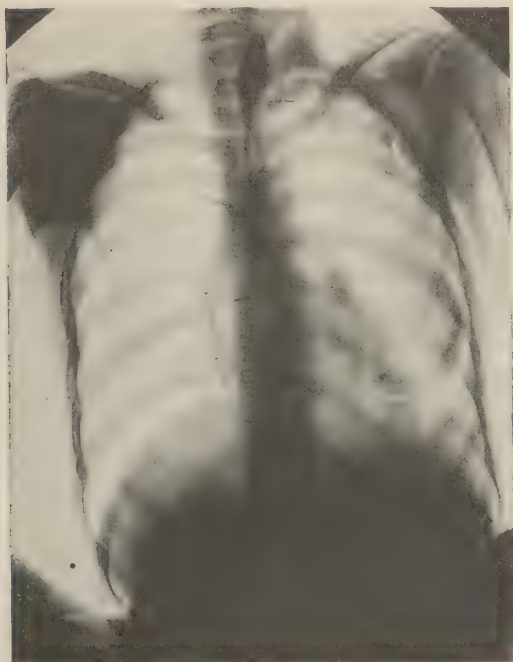
Tommy Young, from Douglas, Ga., has been fed through the opening into his stomach (gastrostomy) only three months. Look at the expression on his face. Suppose he were your son.
(Courtesy Dr. Murdock Equen)



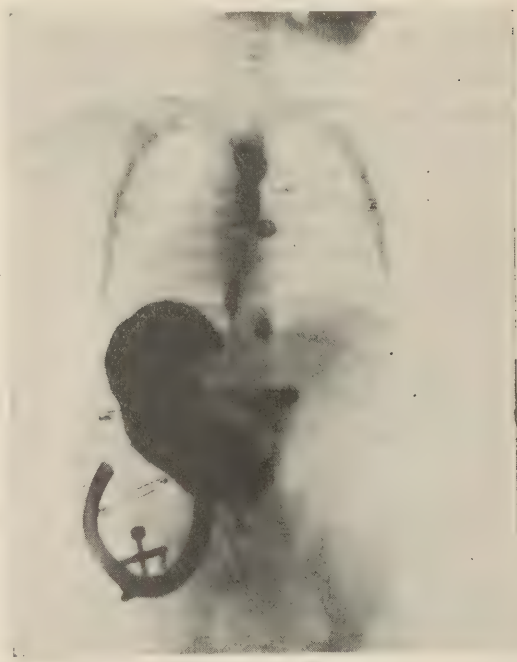
Clayton Jones and Tommy Young together. Note the effects of the acid gastric juice on the skin of the abdominal wall. The strings going through the nose pass through the oesophagus (gullet) out the opening in the stomach to aid in gradual dilatation.
(Courtesy Dr. Murdock Equen)

a law requiring Lye Manufacturers to place on the labels of their wares "Poison" and a skull and cross bones, is unnecessary, that the days of home-made soap making have passed, and that lye really has little demand. However, on investigation it will be found that there is today a large number of cleansing preparations which are largely corrosive, and that lye can be found in the kitchens of most of our homes. The author sees during a year numerous cases, white and colored, who through carelessness of others must lose their lives or pass through a long period of painful treatment. It is questionable whether these cases are ever permanently cured. As a result of the swallowing of lye these children are threatened with starvation and often times death due to the

closing of their esophagus by scar tissue. The swallowing of foreign substances in children is most frequent and a child which has a lye stricture is in far more danger in this respect than otherwise. The author has seen the following foreign bodies superimposed on lye strictures: plum seed, large hunk of meat, piece of pickle, skate ball and bits of crackers. The two boys seen in illustration are Clayton Jones from Gainesville and Tommy Young from Douglas. Both used empty lye cans as drinking cups. Now had the lye cans had large "scare" labels, such as "skull and cross bones and poison" those who used lye would have been more careful as to the disposition of cans and two tragedies would have been prevented.



X-ray picture of chest of girl shown on page 301. She had complete stenosis of the oesophagus at the level of the ninth dorsal vertebra. There is a bronchoesophageal fistula at the sixth dorsal with barium in the right main bronchus and several smaller bronchi. (Courtesy of Dr. W. McL. Shaw)



X-ray picture of chest and stomach of a little boy 6 years old. When two years of age he swallowed some lye. He soon became unable to swallow any food and a gastrostomy was performed to save him from starving. After four years of treatment by gradual dilatation he was able to swallow liquids and soft foods. Picture shows partial stenosis of oesophagus from seventh to ninth dorsal vertebrae. The stomach is filled with barium and the stomach tube is in place. (Courtesy of Dr. W. McL. Shaw)

District and County Societies

The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific

papers and discussions which the society shall consider worthy of publication.—Constitution and By-Laws, Chap. VII, Sec. 15.

FULTON COUNTY MEDICAL SOCIETY

A regular meeting of the Fulton County Medical Society was held May 15th, at the Academy of Medicine, 32 Howard street, Atlanta, with Dr. W. E. Person presiding. There were 65 members present.

A case report, "Sarcoma of the Spleen," was read by Dr. B. T. Beasley and discussed by Drs. Allen H. Bunce and Geo. W. Fuller. Dr. O. O. Fanning gave a clinical talk on "Influenza; and the Chloral Hydrate Treatment," which was discussed by Dr. B. H. Wagnon. A clinical talk was also given by Dr. C. H. Holmes, "Pleural Effusion," being discussed by Dr. E. C. Thrash. Dr. T. C. Davison read a paper on "Effects of

Surgical Operations on Blood Pressure," which was discussed by Drs. Lon Groves, Floyd McRae and W. A. Selman.

Several announcements of importance were made. Three of the newly elected members being present, this time was chosen for the presentation of membership certificates. Drs. Elder, Brice, and Combs were introduced to the Society and presented with certificates of membership in the Fulton County Medical Society. Dr. M. T. Benson extended an invitation to the members to visit Warm Springs, the second Tuesday in July as guests of the Chatahoochee Medical Society.

As there was no further business, the meeting adjourned.

A regular meeting of the Fulton County Medical Society was held during Emory Alumni Week, June 5th, at 8:00 P. M., at the Academy of Medicine, 32 Howard street, Atlanta. Dr. W. E. Person, the President, presided, with 210 being present. Applications for membership were made by Drs. W. R. Smith and L. S. Patton.

A report was made from the Board of Trustees. Dr. E. C. Thrash, Chairman of the Board of Trustees, reported to the Society the recommendation of the Board to the Society that information concerning the operations and clinics held throughout the city be posted daily on the bulletin board of the Academy of Medicine. That this action receive the proper publicity, it was further recommended that the Society purchase a quarter page in The Journal of the Medical Association of Georgia for the purpose of publishing the fact that this information is posted daily for the benefit of the profession, visiting and resident. Dr. Person invested the Board of Trustees with power to act in the matter. Further, it was recommended that the Fulton County Medical Society extend to the American Medical Association an invitation to hold the Annual Convention in Atlanta in 1926. Dr. E. C. Davis made a motion that this be extended at once. Dr. Boland seconded the motion, which was carried.

Dr. W. deB. MacNider, from the University of North Carolina, was present upon the invitation of the Society and gave a most interesting paper on his laboratory work with veratrum. Dr. MacNider's paper was "The Action of Veratrum Viride and Aconite on the Cardio-Vascular System." A paper, "Treatment of Pneumonia," was read by Dr. C. W. Strickler and discussed by Drs. E. C. Thrash, R. T. Dorsey, S. R. Roberts, W. F. Westmoreland and O. O. Fanning. A paper, "Conservatism in Gastric Surgery," was read by Dr. G. Pope Huguley and discussed by Drs. J. L. Campbell, H. R. Donaldson, Geo. C. Mizell and W. F. Westmoreland.

Regular meetings of the Fulton County

Medical Society are held on the first and third Thursday evenings of each month at 8:00 P. M. Our attractive and well ventilated Assembly room in the Academy of Medicine, located at 32 Howard street, is open at all times and visiting doctors are cordially invited to attend these meetings while in the city. The library, which now includes the Index-Catalogue of the Surgeon-General's Library (v. 1-4 3rd series) contains periodicals of interest to each branch of the profession.

GRADY E. CLAY,
Secretary.

Carroll County Medical Society

The Carroll County Medical Society announces the following officers for the year 1924:

President—Dr. W. P. Smith, Bowdon.
Vice-President—Dr. O. W. Roberts, Carrollton.
Secretary-Treasurer—Dr. D. S. Reese, Carrollton.

Wayne County Medical Society

The Wayne County Medical Society announces the following officers for the year 1924:

President—Dr. A. J. Gorden, Jesup.
Vice-President—T. G. Ritch, Jesup.
Secretary-Treasurer—Dr. J. T. Colvin, Jesup.

Madison County Medical Society

The Madison County Medical Society announces the following officers for the year 1924:

President—Dr. H. H. Hampton, Colbert.
Secretary-Treasurer—Dr. W. D. Gholston, Danielsville.
Delegates—Drs. L. E. Roper and J. L. Baker.

Spalding County Medical Society

The Spalding County Medical Society announces the following officers for the year 1924:

President—Dr. A. H. Frye, Griffin.
Vice-President—Dr. E. R. Anthony, Jr., Griffin.
Secretary-Treasurer—Dr. T. I. Hawkins, Griffin.

Delegate—Dr. J. R. Anthony, Griffin.

Lamar County Medical Society

The Lamar County Medical Society announces the following officers for the year 1924:

President—Dr. C. H. Willis, Barnesville.

Vice-President—Dr. C. E. Suggs, Barnesville.

Secretary-Treasurer—Dr. John M. Anderson, Barnesville.

Delegate—Dr. D. W. Pritchett.

Mitchell County Medical Society

The Mitchell County Medical Society announces the following officers for the year 1924:

President—Dr. B. Williams, Pelham.

Vice-President—Dr. F. L. Lewis, Camilla.

Secretary-Treasurer—Dr. C. L. Roles, Camilla.

Delegates—Drs. J. M. Spence and Roy Hill.

Putnam County Medical Society

The Putnam County Medical Society announces the following officers for the year 1924:

President—Dr. V. H. Taliaferro, Eatonton.

Vice-President—Dr. E. T. Griffith, Eatonton.

Secretary-Treasurer—Dr. S. A. Clark, Eatonton.

Delegate—Dr. S. A. Clark, Eatonton.

Dooly County Medical Society

The Dooly County Medical Society announces the following officers for the year 1924:

President—Dr. H. A. Mobley, Vienna.

Vice-President—Dr. T. F. Bivins, Vienna.

Secretary-Treasurer—Dr. P. E. Williams, Vienna.

Delegates—Drs. V. C. Daves and T. R. Moye.

Screven County Medical Society

The Screven County Medical Society announces the following officers for the year 1924:

President—Dr. W. R. Lovett, Sylvania.

Vice-President—Dr. J. C. Cail, Sylvania.

Secretary-Treasurer—Dr. A. B. Reddick, Sylvania.

Delegates—Drs. L. F. Lanier and H. E. Ezell.

Glynn County Medical Society

The Glynn County Medical Society announces the following officers for the year 1924:

President—Dr. J. A. Dunwoody, Brunswick.

Vice-President—Dr. R. E. L. Burford, Brunswick.

Secretary-Treasurer—Dr. J. P. Harrell, Brunswick.

The Third District Medical Association held its Semi-Annual meeting at Fitzgerald as the guests of the Ben Hill Medical Society, on June 11, 1924.

NEWS ITEMS

The Cobb County Medical Society held its regular monthly meeting in Marietta, on Tuesday, July 1st, at 8 p. m. The meeting was called to order and presided over by the President, Dr. E. M. Bailey, of Acworth. Dr. Allen H. Bunce, Secretary-Treasurer of the State Association, was present as the guest of the Society and gave a talk on "Medical Organization." The officers of the Cobb County Medical Society are: Dr. E. M. Bailey, Acworth, President; Dr. W. M. Kemp, Marietta, Vice-President; Dr. L. L. Blair, Marietta, Secretary-Treasurer.

The Chattahoochee Valley Medical and Surgical Association held its 24th Annual Session at Warm Springs, July 8th and 9th. The officers are: Dr. Frank Norman, Greenville, President; Dr. Chas. O. Williams, West Point, Vice-President; Dr. W. J. Love, Opelika, Ala., Secretary-Treasurer.

Dr. Sam A. Anderson, of Macon, was elected Health Officer to succeed Dr. Geo. L. Chapman, deceased, at a meeting of the Baldwin County Board of Health. Dr. Anderson is being welcomed in Milledgeville, where he has taken up his new duties.

Dr. E. E. Murphey, of Augusta, was re-elected President of the Board of Health of the City of Augusta, at a called meeting, May 10, 1924. This is Dr. Murphey's fifth term as President of the Board.

Dr. W. L. Funkhouser, of Atlanta, has removed his offices to 23 East Kimball Street, Atlanta. Practice limited to Pediatrics.

Drs. W. F. Shallenberger and C. B. Upshaw, of Atlanta, announce the removal of their offices to 23 East Kimball Street, Atlanta. Practice limited to Obstetrics and Gynecology.

Dr. Samuel J. Sinkoe has returned to Atlanta after having taken a year of post-graduate work in Vienna, Berlin and Budapest. Before going abroad he spent seven months as associate to Dr. Oswald Lowsley at the Brady Urological Foundation of the New York Hospital, in New York City. Dr. Sinkoe has reopened his offices in the Hurt Bldg., Atlanta. Practice limited to Urology.

Dr. L. W. Wiggins, of Atlanta, has just returned after taking a six weeks post-graduate course for Medical Reserve Officers at Mitchel Field, Long Island.

Dr. H. M. Edge has returned to Cairo, Georgia, to practice medicine.

Drs. Pratt Cheek and John Burns, Jr., of Gainesville, are spending a month in Boston taking Dr. Cabot's Annual Post-Graduate course in Physical Diagnosis.

Dr. J. H. Nicholson, of Madison, past Secretary-Treasurer of the Morgan County Medical Society, has been appointed Chief-Resident Surgeon at the Chester Hospital, Chester, Pa., for the next twelve months, after which time he will return to Georgia.

Dr. Forrest M. Barfield announces the removal of his offices to the Healey Bldg., Atlanta.

Dr. John W. Bradley announces the opening of his offices in the Volunteer Bldg.,

Chattanooga, Tenn. Practice limited to Urology.

Ordinances have been passed in the city of Camilla for the protection of the health of its citizens. One ordinance requires a rigid inspection and expert supervision of all herds of cows from which milk and milk products are obtained and offered for sale in the city. With the assistance of Drs. B. E. Carlisle, Hirleman and C. O. Hainey, of the County Board of Health, an ordinance was also passed providing for an abattoir.

Dr. Q. A. Mulkey has announced that Milten is to have another hospital. The site has been leased and work has already begun.

Dr. Clara Benson, formerly pathologist to the Henry Ford Hospital, Detroit, Mich., has been appointed pathologist at the Macon Hospital. With the installation of a pathological laboratory the Hospital will be given a class A rating.

Dr. Howard Bucknell, of Atlanta, announces the removal of his offices from 20 E. Linden street to 41 Forrest avenue, Atlanta.

Dr. Herschel C. Crawford, of Atlanta, formerly associated with Dr. Hugh M. Lokey, announces the opening of his offices at 436 Peachtree street, Atlanta. Practice limited to diseases of the eye, ear, nose and throat.

Dr. B. B. Steedly announces that after two years of study in American and European Clinics, devoting his attention exclu-

sively to the tumor problem, he has moved his offices to 78 Forrest avenue, Atlanta.

The Georgia State Board of Health, co-operating with the U. S. Public Health Service, held its Fifth Annual Institute-Clinic on Venereal Diseases, June 2-7, 1924, at Atlanta, in conjunction with Emory University Medical Alumni Week.

Opening exercises of the Brunswick-St. Simons Highway were held July 11, 1924, at Brunswick, Ga.

PENITENTIARY CAMP PHYSICIANS' ASSOCIATION

The second annual meeting of the Penitentiary Camp Physicians' Association of Georgia met at Rome, Ga., on Wednesday, June 18th, as guests of the Commissioners of Roads and Revenues of Floyd County, in connection with the Association of County Commissioners of Georgia.

Dr. E. O. Sharnitsky, Physician to the Penitentiary Camp of Richmond County, read a paper on the care of the convict before the Association of County Commissioners.

The program of the Penitentiary Camp Physicians was as follows:

1. Care of the Convict—Dr. J. H. Mull, Rome, Ga.

2. Handicaps of Convict Practice and Some of the Necessary Helps to Relieve It—Dr. M. M. Head, Zebulon, Ga.

3. Syphilis in the Convict—Dr. R. L. Miller, Waynesboro, Ga.

4. Report on Questionnaires Sent Camp Physicians With Some Suggestions—Dr. J. O. Elrod, Forsyth, Ga.

5. Representative of The State Board of Health—Dr. Joe P. Bowdoin, Atlanta, Ga.

The following officers were elected for the next year:

President—Dr. R. L. Miller, Waynesboro, Ga.

Vice-President—Dr. J. H. Mull, Rome, Ga.

Secretary-Treasurer—Dr. Warren A. Coleman, Eastman, Ga.

The next meeting will be held in Athens, Ga., at the time of the meeting of the Commissioners' Association in 1925.

TWENTY-FIFTH ANNIVERSARY OF CLASS 1899

Of the many enjoyable celebrations given during the Emory Alumni Week, that of the class 1899 was unique in character.

Dr. Wiley S. Ansley in Decatur, Ga., was the host of this occasion, which was celebrated at his beautiful home on June 4th.

This class was the first to graduate from the combined schools under the new name of Atlanta College of Physicians and Surgeons.

The following physicians were present: Drs. Wiley S. Ansley, Decatur, Ga., class president; James R. Boring, Canton, Ga.; George S. Clark, Hartwell, Ga.; T. G. Cunningham, Decatur, Ga.; H. R. Donaldson, Atlanta, Ga.; Walter B. Emery, Atlanta, Ga.; W. H. Perkinson, Marietta, Ga.; J. G. Smith, McDonough, Ga.; Theodore Toepel, Atlanta, Ga., class secretary; Alton E. Wheeler, Atlanta, Ga.

Letters and telegrams, expressing regrets at not being able to be present, were received from Drs. J. H. Brooks, Decatur, Ga.; Wm. Cawhern, Atlanta, Ga.; Jesse C. Dover, Clayton, Ga.; L. C. Fischer, Atlanta, Ga.; Lt. Col. H. S. Hansell, Fort Benning; S. M. Samuels, Seattle, Wash.; S. H. Smith, Colloden, Ga. Dr. J. G. Smith, of McDonough, Ga., presented each member present with a beautiful silver belt buckle, engraved "A. C. P. S., 1899."

FIND CHIROPRACTOR GUILTY IN DEATH

New York, April 9.—Ernest G. Meyer, a chiropractor, was found guilty of second degree manslaughter Tuesday as the result of the death of Caroline Germuth, a diphtheria patient, whom he treated.

The jury deliberated half an hour and decided that through culpable negligence the chiropractor, who had adjusted the pa-

tient's spine, was responsible for the death. This is said to be the first time a conviction of a chiropractor on a major crime has grown out of the practice of his profession.

COMMUNICATIONS

In Justice to Drs. T. D. Coleman and B. H. Minchew

In the June issue of the Journal under "Proceedings of the Annual Meeting" appears the "Address of Welcome" by Dr. T. D. Coleman. This is printed as it was transcribed by the official stenographer of the Association and not as it was intended by Dr. Coleman. In a letter Dr. Coleman states, "The galley proof does not contain half of what I had to say."

Also, in the same issue is the address of Dr. B. H. Minchew delivered upon presenting the "Badge of Service" to the retiring President, Dr. John W. Daniel. This, also, appears as it was transcribed by the official stenographer of the Association and not as it was spoken by Dr. Minchew. In a letter Dr. Minchew states, "Nothing could have disappointed me more than to have it printed in the way the stenographer interpreted it."

Of course we regret this exceedingly but it was unavoidable since we had none other than the stenographer's copy at the time of going to press. We extend our sincere apologies to these gentlemen.

ALLEN H. BUNCE, Editor.

To the Editor, Journal Medical Association
of Georgia.

Dear Sir: I will probably be one of many who call attention to your item in current number re "Dr." Banning and the Franklin award. The Journal's notice of this award given on page 116 in March issue shows that even our editors are gullible, especially since the Journal A. M. A. had carried a note similar to yours in May issue, exposing "Dr." Banning.

Had there been such a fund, I believe we would all have heard of it ere now.

Sincerely,

C. D. CLEGHORN, M. D.

Macon, Ga.

Hygeia and Crawford W. Long

The following letter was received from Dr. John W. Dodson, Chairman of the Editorial Board, Hygeia, in response to a letter from the Editor in reference to the article in the February issue of Hygeia on "What is the Use of Pain," in which Dr. Crawford W. Long was not given the credit which we feel is justly due him. A resolution in reference to this was adopted at the recent meeting of the Association in Augusta.

Dr. Dodson's letter is self-explanatory.

Dear Doctor Bunce:

Mr. Cargill sends me your letter of May 28 relative to the unfortunate impression made by the article "What is the Use of Pain?" in the February issue of HYGEIA. It was not intended to be an exhaustive discussion of anesthesia and all of those who have had part in developing this wonderful contribution to medicine.

The statement in reference to Doctor Long is the usual one in authoritative discussions of this subject. I think the majority of people are agreed that Dr. Long did use ether before Morton, just as Benjamin Jesty vaccinated his son twenty-five years before Jenner after numerous experiments made known to the world at large the perfect protection afforded by vaccination.

In the case of discoveries of this sort major credit is usually ascribed to the one who secures its worldwide adoption. On the other hand, Doctor Long deserves great credit for his boldness and genius in using ether. I shall suggest to our Editorial Board that sometime in the near future we print a brief story about Doctor Long's discovery of ether. I have had in mind for some time a series of brief sketches of the high lights in medical history, and this would be a very appropriate chapter in such a story. Thank you very much for calling our attention to it.

If the members of the medical profession would realize as keenly as you do that this is their magazine, established by their House of Delegates, that its success depends mainly on the support which they give it, the circulation of HYGEIA and its usefulness would be many times multiplied in a very short time.

Sincerely yours,

JOHN M. DODSON,

Chairman, Editorial Board, Hygeia.
Chicago, June 3, 1924.

IMPORTANT NOTICE!

The A. W. Calhoun Medical Library, at the Wesley Memorial Hospital, Emory University, Georgia, is trying to complete its file of the Journal of the Medical Association of Georgia. They need the following numbers:

Vol. 1, Nos. 1, 8.

Vol. 9, Nos. 6, 7. (Oct.-Nov., 1919.)

Vol. 10, Nos. 1, 3-6, 8-11, 13, 15, 18 to end of volume.

Any of these issues will be gladly appreciated by the Librarian.

Address—

Librarian, A. W. Calhoun Medical Library,
Wesley Memorial Hospital,
Emory University, Ga.

Marriages

Mr. and Mrs. B. E. Moon announce the marriage of their daughter, Belle, to Dr. Jackson W. Landham, of Atlanta, on Saturday, June 14, 1924. After a two weeks' trip to New York, Dr. and Mrs. Landham are making their home in Atlanta.

Dr. Julian Killen Quattlebaum, of Savannah, and Miss Helen Burkhalter, daughter of Dr. and Mrs. J. W. Burkhalter, were married June 21, 1924, at the Hull Memorial Church, Savannah.

Mr. and Mrs. William A. Barber announce the marriage of their daughter, Mary, to Dr. Arthur Chase Ambler, on Wednesday, April 30, 1924, at the Trinity Church, Asheville, N. C.

Obituary

Dr. J. Branch Tanner, age 55, of Cataula, died in Columbus, June 23, 1924, of cerebral apoplexy. Dr. Tanner graduated at Emory in the class of 1904 and attended the recent Alumni reunion of his class in Atlanta. He first located at County Line, Lumpkin County, Georgia, where he practiced for ten years. Then he moved to Bevelance where he practiced for eight

years. He had been practicing in Cataula since 1921. Dr. Tanner was well-beloved and always faithful to his duty. He will be greatly missed by his many friends.

MEMORIAL TO DR. JAMES B. BAIRD

Dr. James B. Baird, a member of the Fulton County Medical Society since its foundation, passed away in Atlanta, June 6th, 1924. He was born in Columbus, Ga., January 5th, 1849, and graduated in medicine from the Bellevue Hospital Medical College, New York, in 1871. He began the same year to practice his profession in Atlanta, so that he practiced medicine here for fifty-three years.

He became connected with the faculty of the Atlanta Medical College in 1875, and for many years was one of the professors of medicine in this institution, the Southern Medical College and the Atlanta College of Physicians and Surgeons. His final appearance before a class of medical students was last year, when he gave a lecture to the senior class of Emory University on medical ethics, a subject which no one was better qualified to discuss.

Dr. Baird served as president, secretary and orator of the Medical Association of Georgia, and was one of the first members of the Atlanta Board of Health. He also served as a member of the Board of Medical Examiners of Georgia and a member of the Board of Trustees of the State Sanatorium at Milledgeville. He was one of the first members of the visiting staff of the Grady Hospital.

During all the years of his professional life in Atlanta, Dr. Baird was looked upon as one of the leading practitioners. He was a physician of sound judgment, high ability and exalted ethics, and a gentleman of irreproachable character. He represented that school of dignified medical men looked upon as the "family doctor," knowing the inner recesses of domestic and personal affairs of his patients as well as the scientific side. This group is rapidly passing, due to the progress of modern medicine and the birth of specialism.

It is resolved by the Fulton County Medical Society that in the death of Dr. Baird we have lost one of our most distinguished members. The purity of his private and professional life is worthy of all emulation. He stood for what was best in the practice of medicine, and in his passing the medical profession and the community have suffered a great loss.

Be it resolved further that a copy of these resolutions be spread on the minutes of the Society and a copy be sent to the bereaved family, and published in the daily press.

FRANK K. BOLAND,
W. A. SELMAN,
ARCH ELKIN,
Committee.

BOOK REVIEWS

Treatment of the Common Disorders of Digestion—John L. Kantor, M. D., Published by C. V. Mosby Co., St. Louis: This is an excellent handbook, and the author's ideas of therapy are based on physiological and anatomical principles. The reasons for any particular line of treatment are given and the text is particularly free from empiricism. In the management of the numerous functional digestive disorders emphasis is laid on the necessity of treating the patient behind the disease. In discussing the visceroptoses, attention is called to the peculiarities of the asthenic state, and he cautions that these cases are abnormal only in the sense of their evidences of an inferior physical makeup, and that the symptoms therefrom must be so interpreted and treated accordingly. In the chapter on the treatment of gastric and duodenal ulcer, the importance of careful feeding is stressed and the principles of medical management are definitely outlined. The "Carbohydrate Diet," "The Protein Diet," "Sippy Diet" and duodenal feeding are explained in turn. The author devotes a chapter to the treatment of "Delayed Gastric Emptying Time," inasmuch as approximately one in every six patients with digestive complaints suffer in some degree

from delayed gastric motility. Attention is called to the six causative factors most frequently productive of this condition, namely: (1) the shape of the stomach; (2) the character of the motor meal; (3) the tone of the stomach wall; (4) the degree of the acidity of the gastric juice; (5) nervous influences; (6) mechanical obstruction. Three chapters are devoted to the subject of Constipation. Best results are always obtained when the particular type of constipation with which one is dealing is known, such types being the atonic, the spastic the dyschexic, redundant colon, and types associated with mucous colitis. A feature of particular interest is in the many excellent roentgenograms of the colon illustrative of the various types of constipation. The lines of treatment are in accord with best modern day ideas of this subject.

An excellent presentation of the types of diarrheas is given with a practical classification and definite lines of management. The book is concluded with a chapter on the treatment of headaches associated with indigestion. As a whole the book is well balanced thruout and contains the most practical of the current ideas in the treatment of gastrointestinal diseases.

FITTS.

MANAGEMENT OF DIABETES, by George A. Harrop. Published by Paul B. Hoeber, Inc., New York City. Price \$2.00 net.

OBSTETRICAL NURSING, by Chas. Sumner Bacon, Ph. B., M. D. Second edition. Thoroughly revised. Illustrated with 125 engravings. Published by Lee & Febiger. Price \$2.75.

LOCAL ANESTHESIA—ITS SCIENTIFIC BASIS AND PRACTICAL USE, by Prof. Dr. Heinrich Braun. Translated and edited by Malcolm L. Harris, M. D. Second American edition from the sixth revised German edition. 231 illustrations in black and colors. Published by Lee & Febiger. Price \$5.00.

NEW AND NONOFFICIAL REMEDIES, 1924, containing description of articles which stand accepted by the Council on Pharmacy and Chemistry of the A. M. A. on January 1, 1923. Price \$1.50. 422 pages. Published by the A. M. A.

ANNUAL REPORTS OF THE COUNCIL OF PHARMACY AND CHEMISTRY, 1923, published by the A. M. A. 72 pages. Price \$1.00.

DIABETES, by Philip Horowitz, M. D., with 34 text illustrations and two colored plates. Second edition, revised and enlarged. Published by Paul A. Hoeber, Inc., New York. Price \$2.00.

WAR AGAINST TROPICAL DISEASE, by Andrew Balfour, C. B., C. M. G., M. D., B. Sc. (Public Health), F. R. C. P. (Edin.), D. P. H. (Camb.), Director-in-Chief of the Wellcome Bureau of Scientific Research. Published by Bailliere, Tindall & Cox, London, England. Price about \$2.75.

LOVE AND MARRIAGE; NORMAL SEX RELATIONS, by T. W. Galloway, Ph. D., Litt. D.; Associate Director of Educational Measures, American Social Hygiene Association. Net 30c per copy. Published by Funk & Wagnalls Co., New York.

THE EXPECTANT MOTHER; CARE OF HER HEALTH, by R. L. DeNormandie, M. D.; Instructor in Obstetrics, Harvard Medical School. Net 30c per copy. Published by Funk & Wagnalls Co., New York.

TUBERCULOSIS; NATURE, TREATMENT, AND PREVENTION, by Linsly R. Williams, M. D., Managing Director, National Tuberculosis Association. Net 30c per copy. Published by Funk & Wagnalls Co., New York.

VENEREAL DISEASES; THEIR MEDICAL, NURSING AND COMMUNITY AS-

PECTS. By W. F. Snow, M. D., General Director, American Social Hygiene Association. Net 30c per copy. Published by Funk & Wagnalls Co., New York.

Preliminary announcement of a prize essay competition on the vitally important subject, "The Interrelationships of Hospital and Community," is made by The Modern Hospital Publishing Co., Inc., in the June issue of *The Modern Hospital* and *The Nation's Health*.

Three cash prizes of \$350, \$150 and \$100 will be awarded, and there will be such honorable mentions as may be authorized by the Committee of Awards.

The purpose of this competition is to concentrate the thought of hospital, public health, medical and social welfare workers on this timely subject for the purpose of crystallizing opinions and defining future objectives.

The general program for the competition may be obtained on and after June first from The Modern Hospital Publishing Co., Inc., 22 East Ontario street, Chicago, Ill.

PROCEEDINGS OF THE 75TH ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF GEORGIA

Augusta, May 7, 8, 9, 1924

Report of the Committee on Health and Public Instruction

(Continued from June issue, page 201.)

V. We recommend that the Medical Association of Georgia endorse the scheme of the Council of Health and Public Instruction of the American Medical Association of periodic health examinations of the apparently healthy. That your Committee compose a circular intended for the layman, outlining the significance of the periodic health examinations and the advantages of having such examinations made by the family physician. This circular shall

be printed in a lot of 10,000 and shall be available through the county societies. It shall be considered not only good form but also a professional duty for members in general practice to thus circularize their patients. That this paragraph be presented to the Association for ratification independent of the general report of the House of Delegates, at such a time as the scientific committee may designate.

VI. WHEREAS, the Committee on Health and Public Instruction of the Medical Association of Georgia has given special consideration to the relationship of official and unofficial health agencies, and

WHEREAS, The principles of mass health protection through environment control have been established, while the protection and promotion of individual health requires further study and demonstration, and

WHEREAS, Future community health activity requires closer cooperation between the health agency, the individual and the physician, therefore, be it

RESOLVED, That this Medical Association of Georgia, recognizing the importance of preventive medicine, the value of personal hygiene and the service rendered by health agencies deems it for the best good of all concerned that health agencies and lay bodies, contemplating or undertaking public health work in municipalities or counties of the State of Georgia, secure the endorsement of the municipal or county health authorities and the cooperation and the proper degree of participation of the organized medical profession through the county societies, and be it further

RESOLVED, That the Secretary send copies of this resolution to all members of the Medical Association of Georgia, the health agencies operating in the State of Georgia and lay organizations doing health work.

VII. That the Chairman of this Committee act as representative of this Association on the Section of Public Health of the State Council of Social Agencies, which has its

headquarters in Atlanta. This section is composed of representatives of the State Board of Health, the American Red Cross, the Georgia Anti-Tuberculosis Association, the Georgia Pediatric Association, the Georgia Physical Education Association and the Georgia College of Agriculture. The purpose of this section is to avoid overlapping in public health work in the state.

Respectfully submitted,

H. B. NEAGLE,

J. F. MIXSON,

THEODORE TOEPEL,
Chairman.

THE PRESIDENT: I think we should digest this over night and have a meeting of the House of Delegates at 8 A. M. tomorrow. I believe it would be well to defer action on this until tomorrow morning.

DR. BOLAND: I move that we adjourn.

Seconded and the House of Delegates adjourned at 8:10 P. M. to reconvene on Thursday morning.

ALLEN H. BUNCE, M. D.

Secretary-Treasurer.

Thursday, May 8, 1924

Third Meeting

The House of Delegates was called to order at 8:35 A. M. by the President, Dr. J. W. Daniel.

DR. COLEMAN: I move that the reading of minutes of the preceding meeting be dispensed with.

Seconded and carried.

THE PRESIDENT: We will first take up Dr. Toepel's report on Health and Public Instruction. There are several things that should be taken up. They have asked for an appropriation and that will have to go to the Council. Under the By-Laws I will refer that portion of the report to the Council and they can report tomorrow morning at the meeting. Dr. Harvard will be notified that it is to be considered. A motion to adopt the report is in order so that we may discuss it.

DR. COLEMAN: I move that the report be adopted. (Seconded.)

DR. TOEPEL: Yesterday afternoon we looked into something that Augusta is doing now, and we wish to present this supplementary resolution:

RESOLVED, That the Medical Association of Georgia go on record as approving the Welfare and Health Survey of Augusta and Richmond County (now being conducted through the generosity of the broad vision trustees of the J. B. White Fund), as an effective means of bringing about closer cooperation between the medical profession, welfare workers and the laity. It is believed by your committee that this survey will result in the dissemination of knowledge of the close relation between welfare and health conditions and furnish an opportunity for the medical profession to assume the leadership in matters conducive to community prosperity. As an attempt at cooperation and coordination this survey is commended as an example to be followed by other cities and towns of Georgia.

THE PRESIDENT: Gentlemen, you have heard the supplementary resolution offered by the Chairman of this Committee. What is your wish?

DR. COLEMAN: I move its adoption.
Seconded and carried.

THE PRESIDENT: Dr. Toepel, will you kindly call the attention of the House to the other sections on recommendations in your report so that everything will be fresh in their minds?

(Dr. Toepel then read the paragraphs devoted to recommendations.)

THE PRESIDENT: I would like to ask Dr. Toepel if he would object to incorporating in that the Parent-Teachers Association as well. We are after influence and support and I am sure that would help us. Have you any objection?

DR. TOEPEL: No, I have no objection whatever. Let the Parent-Teachers Association appoint a committee of three to meet with these other committees.

Dr. Coleman's motion was put to a vote and carried.

THE PRESIDENT: Has the Committee

on Hospitals anything to report?

DR. MCGEE: Your Committee has no report, Mr. President, for we have no means of finding out what the Association had in mind when the committee was appointed. There is nothing in the By-Laws which describes the function of this committee. We have had a meeting and talked with the older men of the Association, but nobody seems to know what was in mind.

We have had some consideration of the work of the American Medical Association on the administration of hospitals. I feel sure that the hospitals are making greater effort than ever before to give better equipment, better service and that sort of thing. It appears to us that if there is no particular function for this committee, the committee should be abolished or there should be some instruction so that the committee will know what is expected of it.

DR. BOLAND: I wish to know if there is not something in the minutes that would show what the function of this committee should be.

THE PRESIDENT: There is nothing in Chapter VI authorizing such a committee, but there is nothing to prevent the President appointing such a committee. My predecessor evidently appointed the committee and I continued it. If there is no further report we will pass on and listen to the report of Dr. Campbell, Chairman of the Cancer Commission.

Dr. Campbell then presented the following report:

Annual Report of the Cancer Commission

Mr. President and Gentlemen of the House of Delegates of the Medical Association of Georgia:

In making the seventh annual report for the Cancer Commission, it will be interesting to review the work done since its creation in Savannah, April, 1917.

The personnel has changed but little and the members have performed their duty faithfully and efficiently. Each year the work has increased in scope and interest. At the time the commission was created very

little attention was being paid to the subject of cancer control; no effort was being made to teach the public any of the signs or symptoms of a disease that was causing the death of from 1,500 to 2,000 people annually in Georgia.

Until 1922 the commission functioned without financial aid from the State Association, except that the expenses of a speaker for the public meeting held in Macon in 1919 were paid. In 1922 we were given \$100.00 and last year \$150.00, with which we have been able to give the work a much wider range of usefulness.

Early in 1923, your Chairman was made State Chairman for the American Society for the Control of Cancer to succeed Dr. George R. White, of Savannah, who was compelled to leave Georgia on account of his health. We did not succeed in effecting a state wide organization until after the meeting last year. But at the present time we have, in addition to the State Association Commissioner in each Congressional District, a District Chairman for the National Society; in the majority of the districts we selected the same individual. Each of the district chairmen has appointed county chairmen and for the larger towns and cities local chairmen; so that, in all, we have a permanent organization consisting of more than two hundred doctors. I think I am safe in saying that the majority of these men have done something to bring the subject to the attention of the people.

Early in the fall of 1923, a letter was addressed to each district chairman and was followed up a little later by a second one. A letter was then written to each county chairman and to each county medical society. These were also followed up. A letter was sent to the editor of all weekly papers in Georgia, containing a series of four short articles on cancer control to be used in their publications during the active campaign, January 15th to February 14th. These articles were also sent to the district and county chairmen with a request that they urge the editors to publish them.

Since that time a letter has been sent to the county societies and the district and county chairmen, and we have received a large number of reports.

In addition we are now rounding up the year's work by a letter to each county society and county chairman and to the dentists of the state, urging the latter to bring the subject of oral hygiene to the attention of the public as a means of preventing cancer of the mouth and lips.

As a result of the work done by the office of your Chairman, at least one-half or two-thirds of the entire population of the state has heard something about cancer control. The literature given us by the National Society was generally distributed and we have had reports from some sources telling us that, as a result of the campaign, the local doctors have been consulted for lesions that could be greatly benefitted.

The newspapers of the state have rendered valuable assistance. About 150 clippings from various sections were sent to the office of the Secretary of the State Medical Association. Many of the papers made editorial mention of the campaign. Especial good has resulted from the use of our religious press; the Editor of the Christian Index wanted some cuts to illustrate an editorial, but we were unable to furnish them; the Wesleyan Christian Advocate gave us a splendid editorial which did great good. Dr. Bunce has received several letters from points outside the state as a result of the articles carried by the Tri-Weekly Constitution. The Atlanta Journal has been most active in its efforts to help us with the campaign and in addition is carrying in each Sunday edition an article furnished by the Fulton County Medical Society on some of the more common diseases.

The ministers of the leading churches throughout the state have cooperated heartily. Women's clubs, civic organizations, and parent-teachers associations have arranged places on their programs for our speakers.

The interest of the profession in the study

of cancer has increased immensely. Every county society from which I have had a report says that a meeting was devoted to the study of cancer and through the county societies many public meetings have been arranged. The National Society furnished us with a two reel motion picture film entitled, "The Reward of Courage." Owing to the fact that there was some hitch in transportation, this film was not as widely shown as we had hoped. Later in the campaign it was completely lost for several days but was finally delivered to my office after the campaign had closed.

Some of the county and district chairmen deserve especial mention. Dr. Usher in Savannah secured the cooperation of the daily papers, the churches, women's clubs and civic organizations to such an extent that fully three-fourths of the population of Savannah were reached. Dr. G. Y. Moore, of Cuthbert, did excellent work in his district. Dr. Hammond, of LaFayette, was very active and asked for some charts or lantern slides, but we could not furnish them. His work has been supplemented by a campaign on public health, which is being conducted in that section of the state by the Harbin Hospital. Dr. Pruitt is to be congratulated on his selection of Dr. Thrash as County Chairman for Fulton County. Dr. Stewart in Athens and Dr. Allen in Hoschton were instrumental in having the subject presented to a large number of students in Athens and Gainesville.

An itemized statement of our expenditures has been made to the Secretary's Office and will appear in his report, with the exception of the last items which were sent in too late. In brief, we spent the \$150.00 for stationery, stenographic work, multi-graphed letters, printing and last (but by no means least) postage and a few telegrams. I might add here that Kendrick & Williams made no charge for printing and getting into form the articles used in the weekly newspapers. This saved us quite a little money.

In my last letter, I asked the Chairman

to tell me what they thought of the 1924 campaign and whether they thought we should launch another one in 1925. The replies received were unanimous that the campaigns be continued.

Should you wish to continue the work, I expect next year to do more intensive work among the doctors; sending literature to every one in the state, whether he is a member of the Association or not. My work to the public, I shall confine strictly to the Parent-Teachers Association, as this organization is more vitally interested in the welfare of the coming generation and in public health than any group of women in the state.

Gentlemen, I am again asking the Association for \$150.00 to continue the work as outlined above.

Respectfully submitted,

J. L. CAMPBELL,
Chairman.

THE PRESIDENT: I wish to call the attention of the Councilors to this request for money and ask that they report tomorrow morning.

DR. WAGNON: I move the adoption of this report and that the financial portion be called to the attention of the Council.

Seconded and carried.

THE PRESIDENT: Is there any member of the Crawford W. Long Committee here? I do not see the Chairman. This is getting rather embarrassing to me, for we get up and talk about the wonderful work he has done but never do anything ourselves.

DR. BOLAND: I happen to be President of the Crawford W. Long Memorial Association, which is an association outside of the State Association of Georgia. We have been very active and are now within about sixteen hundred dollars of the amount needed to put the statue of Crawford W. Long in the Hall of Fame in Washington. It has been estimated that it will cost about \$9,000.00 to do this and we have about sixty-five hundred dollars. We appealed to the Association last year in Savannah and got a very generous response, getting about

\$600.00. We have picked out the sculptor, Mr. Ryan, of New York, and he is working on the model and I think there is little doubt that within the next eighteen months we will see the statue of Crawford W. Long in Washington. (Applause.)

THE PRESIDENT: I am sure we are all delighted to hear this good news from Dr. Boland. We will next have the report of the Council, Dr. Harvard, Chairman.

DR. HARVARD: On Tuesday night we had a meeting of the Board of Councilors and had a report from all the members, showing every district in fairly good shape this year. We have the state organized pretty well. I think we showed progress along all lines and believe we have been doing good work.

THE PRESIDENT: What is your pleasure in reference to Dr. Harvard's report?

DR. WELLS: I move its adoption.

Seconded and carried.

THE PRESIDENT: Dr. Palmer will now give us his report as Delegate to the American Medical Association.

(The complete report as read by Dr. Palmer will appear in a later issue of the Journal.)

DR. PALMER: The Committee on the Sheppard-Turner Bill asked for further time to report on that bill, owing to the fact that the legality of the bill was being tested.

The Committee on By-Laws offered a resolution which was passed by the Delegates changing the term of office of trustees from three to five years and limiting their term of office to two terms. That was laid on the table until the coming Chicago session, when it will be either defeated or adopted. That was a great move toward progress because it is somewhat restricting the power of the Board of Trustees.

A resolution which I am glad was passed, and which was very timely, was one in regard to Mr. William Whitford, who has reported the meetings of our State Association for fifteen years or more, and who reported the meetings of the American Medical Association for thirty-four consecutive years

and the proceedings of the House of Delegates from the time it was organized. There was a rising vote of appreciation in recognition of this service which he had rendered to the medical profession of the United States. This was very appropriate for since that time Mr. Whitford has passed to the Great Beyond.

THE PRESIDENT: You have heard Dr. Palmer's report, gentlemen, what is your pleasure?

DR. THRASH: I move that the report be adopted.

Seconded and carried.

The President requested Dr. McArthur to take the Chair in the absence of the Vice-President.

Dr. Lyle, Chairman of the Committee on Public Policy and Legislation, presented the following report:

Report of the Committee on Public Policy and Legislation

To the President and Members of the House of Delegates of the Medical Association of Georgia:

Two fully attended meetings of your Committee were held during the past year and several subjects of importance to the Association were discussed.

No active legislation was attempted as it was felt that the time was too short to successfully carry out any program with the last session of the General Assembly.

Your Committee feels that it is unwise to agitate the question of any legislation relative to the various cults in the state as in our opinion these charlatans are rapidly sinking into that oblivion which they so richly deserve. One seldom hears now of an osteopath and only by a blatant campaign of advertising conducted by their "so-called" colleges are the chiropractors able to keep the public informed of their existence. In our opinion the public may be protected by a judicious dissemination of medical information to the laity. This may be accomplished by having on one's reception room table such periodicals as *Hygeia* and furnishing articles therefrom to the lay press with requests for publication.

Your Committee recommends that legislation be effected whereby the President of the Medical Association of Georgia shall be ex-officio a member of the State Board of Health and that the matter of State Milk Inspection be transferred from the Department of Agriculture to the State Board of Health.

Plans are progressing whereby it is hoped to secure legislation providing for the payment by the state of county authorities for expert medical testimony given in behalf of the state. At present a doctor may be called as a state witness and even though he should be forced to remain at court for several days in order to testify in a purely professional capacity he is unable to secure remuneration.

Your Committee feels that under existing conditions it would be unwise to attempt to secure a reduction in professional taxes. The present law is so framed that no county or municipality may impose a license on the medical profession.

The Committee asks that the Attorney for the Association be requested to supply a brief on law regulating the police power of the state for controlling nuisances maintained by individuals or corporations, the penalties for same and the authorities required to enforce them.

Your Committee recommends that the Council of the Association employ a full time executive secretary and Business Manager of the Journal, who need not be a physician, and that the editorial conduct of the Journal be vested in an Editor-in-Chief, and an editorial staff selected by the Council, in the same manner as the present Publication Committee is selected. The executive secretary should be required to perform all the duties of the Secretary-Treasurer except those necessary at the annual meetings of the Association and ex-officio service on the Council and standing committees. It is our belief that the entire expenses of conducting the secretarial and financial affairs of the Association should not under this arrangement exceed \$2,500.00 per annum, thus being an economy as well as a convenience.

Your Committee feels that the present method of electing the officers of the Association is not democratic in that it allows an excess of representation to those of the larger counties where the meetings are held and therefore urge that the election of all officers be placed in the House of Delegates, as is the custom in almost all other states.

Realizing the objection to a division of the scientific session into sections, and knowings of the Association extend over a period of time, we recommend that the annual meetings of the Association extend over a period of four days instead of three as at present. This period to include Tuesday which under the proposed revision of the By-Laws is to be used for a meeting of the House of Delegates and it is suggested that the paper of no delegate appear on the program for that day.

Your Committee wishes to express its appreciation of the valuable services of Dr. R. T. Dorsey, former chairman, under whose guidance we worked until his recent resignation and under whose direction all these recommendations are made.

W. C. LYLE,
Chairman.

THE CHAIRMAN: You have heard the report, gentlemen, what do you wish to do?

DR. THRASH: I move that this report be filed and that these recommendations be taken up under miscellaneous business. To take it up paragraph by paragraph would require a lot of time. (No second.)

DR. CLARK: This motion receives no second. Of course, there are some things that you cannot adopt because they are diametrically opposed to your Constitution and By-Laws, and there are matters of expense, and in the short time at our disposal I doubt if we could consider the matter adequately.

I move that this be referred to the Council to report back to us in 1925. (Seconded.)

DR. SMITH: Does this mean that the resolution offered by the Pediatric Society is a part of it?

DR. CLARK: That should not have been offered there.

DR. SMITH: It is out of order, I think, to discuss a resolution offered to the House of Delegates, but I believe this is a matter of emergency, so much so that the American Medical Association has a special committee to look after it. I understand that Pennsylvania and the nearby State of Florida have had this passed. In my own experience I have had seven cases of potash poisoning, and that means death in most instances. If they get well they have a life of suffering. I wish to know if there is not some other way that this can be disposed of, and passed as an emergency measure—if there is not some way of doing this without referring it and having it go over for a year.

DR. CLARK: The point I wish to make is that this is new business and when it comes up under that head it can be referred to the Committee or acted upon at this time.

The motion before the House is to commit the report of the Committee on Public Policy and Legislation to the Council. We are discussing the commitment of the report with the exception of the resolution by Dr. Waring.

THE CHAIRMAN: Is there any further discussion regarding the commitment of this report to the Council? If not, all in favor say aye. (Unanimously carried.)

Dr. Bunce then presented the financial report of the Secretary-Treasurer.

FINANCIAL STATEMENT

Balance in Bank, May 1, 1923.....	\$ 6,990.50
Total receipts from all sources, May 1, 1923, to May 1, 1924	11,544.46
Total to be accounted for	18,534.96
Balance in Bank, May 1, 1924	6,609.88
Total expenditures May 1, 1923, to May 1, 1924, as per vouchers attached	11,925.08
Total accounted for	18,534.96

VOUCHERS

No.	Description	Amount
247	Mr. Grover Middlebrooks, railroad fare to Blue Ridge, Ga.	\$ 7.42
	Only outstanding check in 1923 report.	
252	Allen H. Bunce, M. D., Secretary's salary for April	150.00
253	Allen H. Bunce, M. D., for office space, stenographic work, clerical work, bookkeeping, etc., for April.....	75.00
254	E. K. Large, Postmaster, postage.....	20.00
255	Kendrick & Williams, Inc., 5,000 No. 10 envelopes, \$20.00; 1,800 copies Journal, April issue, \$314.88	334.88

256	Dr. E. C. Thrash, refund on traveling expenses official capacity as President of Association, 1921-1922	150.00
257	L. M. Warfield, M. D., guest of Association, expenses	110.74
258	E. K. Large, Postmaster, stamps (for letters and circulars for Committee on Health and Public Instruction.....	30.00
259	Ralston Lattimore, M. D., expenses Committee on Scientific Work	30.00
260	Dr. L. F. Grubbs, account Committee on Medical Defense. Mrs. Blanche Elrod, next friend, vs. Dr. L. F. Grubbs	381.00
261	Allen H. Bunce, M. D., salary for May.....	150.00
262	Allen H. Bunce, M. D., stenographer, bookkeeper, office space, clerical work, etc., for May	75.00
263	Dr. C. W. Roberts, telegram sent to Dr. Welch	2.09
264	Hodges Badge Co., badges, special delivery and insurance	55.70
265	Lester Book & Stationery Co., pins, paste, letter files, clips, pencil sharpener, rubber bands	5.85
266	Two Cent Letter Company, multigraphing, addressing, mailing, signing and furnishing stamps	11.62
267	Southern Press Clipping Bureau, clippings for April	5.00
268	D. L. Auld Company, 2 M. A. Ga. Buttons, 14 kt. screw backs	6.83
269	M. M. McCord, M. D., Councillor 7th District, transportation to Chattooga; multigraphed letters to members in District	21.24
270	Massachusetts Bonding & Insurance Company, Re F-99019 Allen H. Bunce, M. D.	7.50
271	Marion C. Pruitt, M. D., commercial signs, printing, etc.	15.00
272	E. Schmitt, for services illustrating lectures, DeSoto Hotel	10.00
273	Kendrick & Williams, Inc., 1,825 copies May Journal	319.38
274	E. K. Large, Postmaster, stamps.....	20.00
	Debit ticket, the Third National Bank, Columbus, Ga., Dr. W. P. Jordan, Secretary, Muscogee County Medical Society, check returned	95.00
275	Mr. Archibald Blackshear, Dr. W. W. Battey vs. J. Bothwell Lee	50.00
276	Miller's Book Store, 1 L. L. Ledger.....	4.75
277	Allen H. Bunce, M. D., salary for June.....	150.00
278	Allen H. Bunce, M. D., stenographer, bookkeeper, office space, clerical work, etc.	75.00
279	E. K. Large, Postmaster, stamps.....	15.00
280	Dr. Allen H. Bunce, salary for July.....	150.00
281	Dr. Allen H. Bunce, stenographer, bookkeeper, office space, clerical work, etc.	75.00
282	Southern Engraving Company, to invoice No. 3125	8.85
283	Dr. C. K. Sharp, to expense occasion visit to Colquitt County Medical Society.....	4.50
284	American Printing Company, envelopes and letter heads	24.75
285	Addressograph Company, cuts, cards, plates	2.39
286	American Medical Association, American Medical Directory	12.00
287	Dr. S. J. Lewis, transportation to Macon to meeting of Councillors and return, June 15, 1923	9.00
288	Ruth I. Hill & Company, multigraphing of letters for Dr. W. A. Mulherin, Councillor	12.23
289	J. P. Stevens Engraving Co., stationery for President	20.75
290	Southern Press Clipping Bureau, clippings for May and June	10.00
291	William Whitford, railroad expenses, reporting four days, transcript of minutes and discussions	424.49
292	E. K. Large, Postmaster, stamps	13.55
293	Two Cent Letter Company, multigraphing letters for Drs. Bunce, Pruitt and Toepel	27.25
294	Horne Desk & Fixture Company, invoice No. 12364	3.00
295	Crawford W. Long Committee	361.02
	Error in bank deposit11

296	The Donaldson-Woods Company, catalog envelopes	143.25	338	Bryan & Middlebrooks, salary for the year	1,000.00
297	E. K. Large, Postmaster, stamps	20.00	339	Underwood Typewriter Co., repairing of typewriter	10.00
298	Byrd Printing Company, 1,850 copies of Journal	360.55	340	E. K. Large, Postmaster, postage, Committee on Health and Public Instruction	20.00
	Debit ticket, Baldwin County Medical Society, Milledgeville, Ga., RTD., account closed	15.00	341	Allen H. Bunce, M. D., salary for January	150.00
299	Mrs. W. F. Goodroe, clerical work for Journal mailing list, 79 hours	38.50	342	Allen H. Bunce, M. D., office space, stenographer, bookkeeper, etc.	75.00
300	Allen H. Bunce, M. D., salary for August	150.00	343	Dr. J. W. Palmer, Delegate to A. M. A.	100.00
301	Allen H. Bunce, M. D., stenographer, office space, bookkeeper, etc.	75.00	344	Dr. J. N. Brawner, Delegate to A. M. A.	100.00
302	Allen H. Bunce, M. D., salary for September	150.00		Debit ticket, checks returned, Drs. J. W. Story and H. E. Evans	12.00
303	Allen H. Bunce, M. D., stenographer, office space, bookkeeper, etc.	75.00	345	Allen H. Bunce, M. D., salary for February	150.00
304	E. K. Large, Postmaster, postage for mailing Journal	12.73	346	Allen H. Bunce, M. D., office space, stenographer, bookkeeper, etc.	75.00
305	Southern Press Clipping, clippings for July	5.00	347	E. K. Large, Postmaster, stamps	20.00
306	Lester Book & Stationery Co., clips, etc.	3.00	348	Mrs. F. W. Goodroe, 58 hours work on mailing list of Journal	29.00
307	Byrd Printing Co., 2,000 statements, 1,900 copies of Journal for July, 1,900 copies of Journal for August	695.19	349	E. K. Large, Postmaster, stamps	20.00
	Debit ticket, Cornelia Bank, Demorest, Ga., signature missing	5.00	350	E. K. Large, Postmaster, postage for mailing Journal	39.72
	Debit ticket, Third National Bank, Columbus, Ga., W. P. Jordan, Secretary Muscogee County Medical Society, NSF	25.00	351	Lester Book & Stationery Company, Cico paste, yellow second sheets, etc.	5.95
308	Southern Engraving Co., invoices Nos. 3405, 3440, 3957	48.00	352	Lester Book & Stationery Company, rubber bands, manilla guides, index strip	5.20
309	Dr. M. M. McCall, for three Council meetings (two in 1921 and one in 1922)	30.00	353	Howard & Marbut, binding 10 volumes of the Medical Journal	27.00
310	Mrs. E. K. Cunningham, minutes of meetings July 6, 1923; Public Policy and Legislation with multiple copies	10.00	354	Dr. S. J. Lewis, expense incident to sending letters	8.75
311	Dr. J. M. Smith, traveling expenses 1922	150.00	375	The Publishers Press, 1,200 cards, Augusta meeting	7.50
312	E. K. Large, Postmaster, stamps	30.00	356	Southern Press Clipping Bureau, clippings for November and December	10.00
313	E. K. Large, Postmaster, stamps for mailing Journal	5.42	357	Byrd Printing Company, Medical Journal	344.96
314	Byrd Printing Company, case records and Journals for September	392.32	358	Byrd Printing Company, envelopes, etc.	42.50
315	Southern Press Clipping Bureau, clippings for August and September	10.00	359	Dr. J. L. Campbell, expenses incident to Cancer Control Campaign	60.35
316	Allen H. Bunce, M. D., salary for October and November	300.00	360	Allen H. Bunce, M. D., salary for March	150.00
317	Allen H. Bunce, M. D., stenographer, bookkeeper, office rent, etc., for October and November	150.00	361	Allen H. Bunce, M. D., office space, bookkeeper, stenographer	75.00
318	E. K. Large, Postmaster, mailing Journal	20.45	362	Two Cent Letter Company, addressing and filling letters	15.15
319	E. K. Large, Postmaster, postage	10.00	363	E. K. Large, Postmaster, postage for mailing Journal	5.84
320	E. K. Large, Postmaster, stamps	30.00	364	E. K. Large, Postmaster, stamps	30.00
321	Southern Press Clipping Bureau, clippings for October	5.00	365	Bryan & Middlebrooks, fee to Mr. N. L. Gillis, Jr., in re, Wilkes vs. Thompson	100.00
322	Byrd Printing Company, October Journals	394.41		Debit ticket, Bank of Wrightsville, Ga., J. G. Brantley, NSF	25.00
323	Bryan & Middlebrooks, in re Mrs. F. L. Bryon vs. Dr. C. C. Aven	40.24		Debit ticket, First National Bank, Claxton, Ga., J. C. Collins	45.00
324	Lester Book & Stationery Company, clips, yellow sheets, paste	4.69	366	Transfer check	
325	E. K. Large, Postmaster, stamps	20.00	367	Allen H. Bunce, M. D., salary for April	150.00
326	Miss Daisy L. Maxey, services rendered Medical Association at Savannah meeting	10.00	368	Allen H. Bunce, M. D., office space, stenographer, bookkeeper, etc.	75.00
327	Dr. J. L. Campbell, Cancer Commission, letter heads, etc.	21.75	369	The Publishers Press, March Journals	368.42
328	American Medical Association, Committee on Health and Public Instruction literature	3.00	370	Two Cent Letter Company, literature for Committee on Public Health and Instruction	6.67
	Debit ticket, Dr. S. L. Cheshire, Thomasville, Ga., NSF	8.00	371	Southern Press Clipping Bureau, clippings for January, February, March	15.00
329	Dr. Allen H. Bunce, salary for December	150.00	372	Southern Engraving Company, to invoices Nos. 1364, 1417	9.06
	Error in bank deposit	15.00	373	Byrd Printing Company, February issue of Journal	344.96
330	Dr. Allen H. Bunce, stenographer, bookkeeper, office space, etc.	75.00	374	E. K. Large, Postmaster, stamps	20.00
331	Fred N. Standbridge, organization work for Association	58.00		Debit ticket, J. P. Hunter, M. D., Lafayette, Ga., NSF	5.00
332	Martha Whitford, furnishing report of secretaries conference	18.00		Total expenditures	\$11,925.08
333	Two Cent Letter Company, Committee on Health and Public Instruction	25.30			
334	American Medical Association, health examination forms, Committee on Health and Public Instruction	48.00			
335	E. K. Large, Postmaster, postage and replenishing of deposit	20.25			
336	Addressograph Company, can of black ink	1.00			
337	Byrd Printing Company, subscription blanks, stationery, literature, November Journals	752.17			

DR. BUNCE: This report was taken up by the Council, who appointed an Auditing Committee, and I submit their report:
Mr. Chairman:

We, your Committee appointed to audit the accounts of the Secretary-Treasurer, make the following report:

We have checked the receipts and disbursements and find them correct.

On account of a number of checks from county society secretaries being returned marked "not sufficient funds" we recommend that some steps be taken to correct this evil.

Respectfully submitted,

C. K. SHARP,

Chairman.

W. R. McCALL,

T. C. THOMPSON.

DR. BOLAND: I move the adoption of these reports.

Seconded and carried.

DR. PALMER: How many members have we now?

DR. BUNCE: Approximately 1400.

THE CHAIRMAN: The next thing in order is new business, is there anything to come up under this head?

DR. THRASH: Under this head I wish to offer an amendment to the Constitution. Gentlemen, according to our present method of electing the Councilors it is unfair to the respective districts. We have been working contrary to the Constitution in the past years by having nominations on the floor of the House. The Constitution does not suggest this, we are to elect from the House. It is the duty of the respective districts to select their Councilors. At the end of the meeting most of the men have hurried away and there may be no one to select their councilors and this has been done in rather a slipshod way. Fortunately, the selections have been well made, but it is the opinion of the men throughout the state that the districts should elect their councilors previous to the state meeting. I wish to offer this amendment to the Constitution, under Article IX, Officers:

In Section 3, line 3, after the word "nomination," insert the following: "except the Councilors, who shall be nominated by members of the respective districts at the last district meeting preceding the annual meeting of the State Association, and these nominees shall be voted upon at this annual meeting, provided nominees are present."

THE CHAIRMAN: This notice will take the usual course, which provides that it be referred to the next session for action. Is there anything further, gentlemen?

DR. TOEPEL: I have a resolution which I would like to offer, as follows:

Realizing that the midwife problem is a most serious one, and wishing to be of service to all our people, we recommend that our State Board of Health be requested to give such instruction and regulations as they think best, and that this instruction be given under the supervision and direction of some physician who is a member of this Association, in each county, and if such membership is not represented, some ethical physician in each county.

By the Committee on Health and Public Instruction.

THEODORE TOEPEL,
Chairman.

H. B. NEAGLE,
J. F. MIXSON.

DR. ELROD: I move its adoption, but two or three years ago the Council gave this instruction to the Board of Health, that they work through the Local Committee in instructing the midwives. This was brought up before the Council and each time the Council has requested that nothing be done except through the local societies. I move the adoption of the resolution.

Seconded and carried.

DR. BUNCE: The Georgia Pediatric Society, through its President, Dr. A. J. Waring, presents the following resolution to the Committee on Public Policy and Legislation for suitable action:

"WHEREAS, The domestic use of concentrated lye and other caustic alkalis and of corrosive acids, in ignorance of their dangerous properties and treatment in case of accident, is a not infrequent cause of death and of prolonged; distressing and incurable disability, particularly among children; and

"WHEREAS, In the judgment of this house the adoption of suitable methods of

packing, labeling and distributing such substances would materially diminish the danger; and

"WHEREAS, Efforts to bring about the adoption of such methods by the voluntary action of manufacturers and distributors have given no prospect of success, be it

"RESOLVED, That it is the sense of the House of Delegates of the Medical Association of Georgia in convention assembled, that in the interest of public health and safety, the packing, labeling and other distribution of concentrated lye and of other caustic alkalis and of corrosive acid should be regulated by law; and be it

"RESOLVED, further, That the Committee on Public Policy and Legislation be instructed to take such action as may be necessary to procure the enactment of such state laws as may be necessary to effect such regulation."

DR. BOLAND: I move its adoption.

Seconded and carried.

THE CHAIRMAN: Is there anything further, gentlemen?

DR. WARING: I move the withdrawal of the Standing Rule which states that no meeting of any component society of the Medical Association of Georgia shall be held during the annual session of the Medical Association of Georgia, or that it be amended by adding, "except at a time that in no way conflicts with any scheduled meeting or assembly of the Medical Association of Georgia."

As the rule is interpreted now it means that no meeting of any other society can be held. Therefore, in order to make any meeting, such as the Pediatric Society of Georgia held last night, in accord with the rules this amendment is necessary and I move its adoption.

THE CHAIRMAN: Is that specific enough to have it taken up at the next session or now?

DR. CLARK: The members of the House of Delegates may not know of this rule. If you will look in your transactions of 1908 or 1909 you will find that the resolu-

tion was brought up and passed at that time. The Central of Georgia was having its meetings at that time and interfered very much with our meeting and this rule was passed, which means from Wednesday morning until Friday night. That rule has never been abolished or rescinded. This is simply an amendment to that and is in order by a majority vote.

Dr. Waring's motion was seconded and carried.

DR. ELROD: I think we should do something in regard to a recommendation to the Finance Committee concerning the checks that are no good.

I move that this body recommend that hereafter the secretaries of county societies send a New York or Atlanta draft or money order for their dues.

If some member has failed to receive his card and is not eligible to meet with us because of the fact that his county secretary has spent his dues it is not fair. If they send a New York or Atlanta exchange or money order that will be prevented. It will not cost the secretary anything to get either a certified, a cashier's check or exchange that he knows is bonafide money.

Motion seconded.

DR. WELLS: I amend that motion to give the Secretary time to see if the check will be returned. I think it is a reflection on the secretaries to assume that their check will not be accepted. The State Secretary could wait before sending the cards until the check has time to go through the bank and if it comes back he can then notify the county secretary that he cannot send the cards until the check is made good.

DR. ELROD: I understand that this refers simply to the secretaries of the county societies, not to the individual members.

DR. WAGON: I oppose this resolution on this ground—if county secretaries send their personal check to Dr. Bunce it is some responsibility and it would make those fellows mad as hell to send their check back. If you do that they will not send them back.

DR. McGEE: I agree with Dr. Elrod that if this is made a rule then it applies to everybody. I consider it a very serious matter that a number of men over the state are not members of this body, although they have paid their dues. I would consider if I had paid my dues to the county secretary and he did not forward the money that I had a right to be mad myself. I think the motion is well in order and that it should pass. It is not a reflection then on any secretary but simply a rule.

DR. DEAN: Any secretary who will do this should be made as mad as hell or anything else. As Dr. McGee says, the man who has turned his money over to the county secretary and is not able to attend the meeting should be mad. It is easier for the secretary to go to the bank and get a certified check than to get a money order, and it costs him nothing.

DR. CLARK: The Council is the Finance Committee of this Association. I do not agree with some of the gentlemen that if the Secretary did not send in my dues I would get that mad.

I move that this be referred to the Council for action. (Seconded.)

THE CHAIRMAN: It occurs to me that it is a reflection on the county society that elects that kind of a secretary, and a county society that elects such a man is responsible to this Association.

The motion is to refer to the Council for action. What is your pleasure?

Dr. Clark's motion was voted upon and carried.

DR. BOLAND: I move that we adjourn.

Seconded and carried.

ALLEN H. BUNCE, M. D.,

Secretary-Treasurer.

Friday, May 9, 1924

Fourth Meeting

The House of Delegates was called to order at 8:40 A. M. by the President, Dr. J. W. Daniel.

The first order of business was a resolu-

tion from the Attorney for the Medical Association of Georgia regarding the revision of the charter of the Association, as follows:

WHEREAS, The charter of the Medical Association of Georgia was granted on June 10, 1901, by the Superior Court of Fulton County, Georgia; and

WHEREAS, The said charter expired on June 10th, 1921, and the Medical Association of Georgia has continued in business in ignorance of such expiration. Now, therefore, be it

RESOLVED, At the regular annual meeting of the members of the Medical Association of Georgia, held at Augusta, Georgia, on May 9, 1924, by the members of the Medical Association of Georgia that the said charter be revived, and that the Secretary of the Association be authorized to cause a petition to be duly filed in the Superior Court of Fulton County, Georgia, for the purpose of reviving the said charter.

Upon motion, duly seconded and carried, this resolution was adopted.

DR. BOLAND: I have a resolution which I would like to offer:

RESOLVED, That the Committee on Public Policy and Legislation of the Medical Association of Georgia be instructed to have introduced in the State Legislature at its next session an act to provide for a tax of One Dollar (\$1.00) per capita, to be known as the Sanitary Tax, the proceeds of which will be used for the prevention of disease among the people of the state.

I move that this be adopted.

Seconded and carried, and referred to the Committee on Public Policy and Legislation.

DR. TOEPEL: I move that the House of Delegates approve and recognize the Woman's Auxiliary as a part of this organization, and that we give them the privilege of attending the scientific meeting and allow them to wear a special badge, but that they have no voting privilege.

Motion seconded and carried.

THE PRESIDENT: Invitations have been received for the Association to meet in Atlanta in 1925 and in Brunswick in 1926. The invitation to Atlanta comes from the Atlanta Convention Bureau and is signed by the Mayor of the City, the President and Secretary of the Bureau and by the President of the Atlanta Woman's Club. The invitation to meet in Brunswick comes from the Mayor, the Brunswick Board of Trade and the Commissioners of Roads and Revenue. What is your pleasure, gentlemen?

DR. THRASH: I move that we accept these invitations.

Seconded and carried.

THE PRESIDENT: What is the next thing, gentlemen?

DR. BOLAND: I move that the incoming President create a standing committee to be known as the Committee on National Defense and to consist of twelve members, one from each Congressional District.

Seconded and carried.

DR. SIMMONS: I have a resolution which I wish to offer. There is not a merchant in Georgia, not a tobacco man or a chiropractor, or anyone who is not informed of the passage of any law affecting his profession or business, and I wish to offer the following resolution:

WHEREAS. The Medical Association of Georgia has pledged its support to the State-wide Health Association and its cooperation with various organizations already interested and engaged in seeking improvement of health conditions, as well as itself undertaking the initiation of many methods looking toward that end through two of its standing committees, and

WHEREAS, Ignorance or unintentional indifference on the part of the membership at large of this Association, as well as of these other organized agencies, as to any legislation that may be proposed or pend-

ing touching health matters often contributes to the defeat of desired legislation, or the passage of inimical laws, therefore, be it

RESOLVED, By this Association, through its House of Delegates in regular session assembled, that there be prepared a digest by title and object of proposed approved or inimical legislation, appropriation measures, etc., as are contemplated for the purposed outline, and to be introduced, or for which introduction may be sought, and that such list or digest be mailed to the members of this Association, and to the heads of cooperating bodies with the request that they each similarly circularize their respective memberships. Be it further

RESOLVED, That in such circular an appeal be made for active and aggressive support or opposition, as the case may be, in person or by mail or both, for the voicing may be served by them in legislation affecting health, the true foundation of prosperity and happiness.

THE PRESIDENT: You have all heard this resolution offered by Dr. Simmons. What is your pleasure?

DR. TOEPEL: Your Committee on Health and Public Instruction has already taken steps in this regard but I think there is no harm in adopting this and referring it to that Committee.

DR. LYLE: I move that this be adopted and referred to the Committee on Health and Public Instruction.

Seconded and carried.

DR. SHARP: I have a resolution which I would like to offer, Mr. President.

WHEREAS, In a recent copy of Hygeia distributed to the membership of this Association there is an article giving full credit to William G. Morton as the discoverer of anesthesia, and at the same time a somewhat disparaging reference to the immortal Crawford W. Long, therefore, be it

(Continued on page 329)

CONSTITUENT COUNTY SOCIETIES

County	Society	President	Address	Secretary	Address
Altamaha		J. M. Hall	Hazelhurst	G. C. Overstreet	Hazelhurst
Baldwin		Richard Binion	Milledgeville	H. D. Allen, Jr.	Milledgeville
Banks		J. S. Jolly	Homer	O. N. Harden	Homer
Barrow				W. T. Randolph	Winder
Bartow		W. C. Griffin	Cartersville	T. Lowry	Cartersville
Ben Hill		L. S. Osborn	Fitzgerald	W. P. Coffee	Fitzgerald
Berrien-Lanier		Officers not reported			
Bibb		Herring Winship	Macon	J. Fred Adams	Macon
Blue Ridge		J. M. Daves	Fairburn	C. B. Crawford	Blue Ridge
Bulloch-Candler		W. E. Simmons	Metter	F. F. Floyd	Statesboro
Burke		H. A. Macaulay	Waynesboro	J. B. Lewis	Waynesboro
Butts		W. H. Steele	Jackson	J. Lee Byron	Jackson
Brooks		J. R. McMichael	Quitman	L. A. Felder	Quitman
Campbell		R. T. Camp	Fairburn	A. J. Green	Union City
Carroll		W. P. Smith	Bowden	D. S. Reese	Carrollton
Chatam		R. V. Martin	Savannah	E. Carson Demmond	Savannah
Chattooga		M. N. Wood	Menlo	F. W. Hall	Summerville
Cherokee		J. M. Bates	Canton	G. C. Brooke	Canton
Clark		Linton Gerdine	Athens	Jos. S. Stewart, Jr.	Athens
Cooke		H. W. Clements	Adel	L. R. Hutchinson	Adel
Clayton-Fayette				H. D. Kemper	Jonesboro
Cobb		E. M. Bailey	Acworth	L. L. Blair	Marietta
Coffee		J. R. Smith	Douglas	T. H. Clark	Douglas
Colquitt				M. H. Stuart	Moultrie
Coweta		Officers not reported			
Crisp		L. E. Williams	Cordele	Byron Daniel	Cordele
Decatur-Seminole		Gordon Chason	Bainbridge	P. M. Lewis	Bainbridge
DeKalb		C. E. Pattillo	Decatur	J. F. Pitman	Decatur
Dooley		H. A. Mobley	Vienna	F. E. Williams	Vienna
Douglas					
Dougherty		A. W. Wood	Albany	W. S. Cook	Albany
Elbert		A. C. Smith	Elberton	B. B. Mattox	Elberton
Emanuel		D. D. Smith	Swainsboro	S. S. Youmans	Oak Park
Floyd		M. M. McCord	Rome	J. H. Mull	Rome
Fulton		W. E. Person	Atlanta	Grady E. Clay	Atlanta
Forsyth				Marcus Mashburn	Cummings
Franklin		Stewart D. Brown	Royston	B. T. Smith	Carnesville
Glynn		T. A. Dunwoody	Brunswick	J. P. Harrell	Brunswick
Gordon		R. M. Gray	Sugar Valley	Z. V. Johnston	Calhoun
Grady		J. B. Warnell	Cairo	J. V. Rogers	Cairo
Greene					
Gwinnett		N. J. Guthrie	Norcross	D. C. Kelley	Lawrenceville
Habersham		E. H. Lamb	Demorest	R. H. Lamb	Demorest
Hall		J. H. Downey	Gainesville	Pratt Cheek	Gainesville
Haralson					
Hart		Geo. T. Harper	Dewy Rose	Thos. R. Gaines	Hartwell
Heard					
Henry		L. G. Smith	McDonough	W. P. Sloan	McDonough
Houston		Officers not reported			
Irwin		G. W. Willis	Ocilla	L. L. Whiddon	Ocilla
Jackson		F. M. Hubbard	Commerce	J. C. Bennett	Jefferson
Jasper		Officers not reported			
Jefferson					
Jenkins		M. E. Perkins	Millen	C. Thompson	Millen
Jones				P. R. Chambliss	Gray
Johnson		F. L. Harris	Wrightsville	J. G. Brantley	Wrightsville
Lamar		C. H. Willis	Barnesville	J. M. Anderson	Barnesville
Laurens		J. E. New	Dexter	J. H. Cheek	Dublin
Lowndes				Frank Bird	Valdosta
Madison				W. D. Gholston	Amelsville
Macon-Taylor				J. E. Mangham	Reynolds
Meriwether				Frank P. Norman	Greenville, Acting Sec'y
Mitchell		B. Williams	Pelham	C. L. Roles	Camilla
Monroe				W. J. Smith	Juliette
Montgomery		C. W. Findley	Uvalda		
Morgan		Officers not reported			
Muscogee		J. H. McDuffie, Sr.	Columbus	R. S. Torbett	Columbus
McDuffie		Sterling Gibson	Thompson	R. Y. Pryce	Thompson
Newton				W. D. Travis	Ovington
Ocmulgee (Dodge, Bleckley and Paulding Counties)		J. Cox Wall	Eastman	W. H. Pirkle	Cochran
Paulding					
Pickens					
Pike		J. C. Beauchamp	Williamson	M. M. Head	Zebulon
Polk		T. E. McBride	Rockmart	W. W. Tison	Cedartown
Putnam		Officers not reported			
Randolph		H. R. Ingram	Coleman	G. Y. Moore	Cuthbert
Richmond		T. D. Coleman	Augusta	J. D. Gray	Augusta
Screven		W. R. Lovett	Sylvania		
Stephens		J. H. Terrell	Poccoa	C. L. Ayers	Poccoa
Spalding		A. H. Frye	Griffin	T. I. Hawkins	Griffin
Stewart-Webster		G. G. Lunsford	Weston	M. Walton	Lumpkin
Sumter				J. F. Lunsford	Americus

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County Society	President	Address	Secretary	Address
Taliaferro	No officers reported			
Tatnall-Evans	L. V. Strickland	Cobbtown	J. C. Collins	Collins
Talbot			C. C. Carson	Talbotton
Telfair	B. M. Kennon	McRae	C. J. Maloy	Helena
Terrell	J. G. Dean	Dawson	Steve P. Kenyon	Dawson
Thomas	J. T. King	Thomasville	C. K. Wall	Thomasville
Tift				
Toombs			W. W. Odom	Lyons
Turner	Officers not reported			
Tri (Early, Miller and Calhoun Coun- ties)	J. L. Cheshire	Damascus	C. K. Sharp	Arlington
Troup	D. E. Morgan	LaGrange	H. H. Hammett	LaGrange
Twiggs	A. J. Wood	Fitzpatrick	H. A. Rogers	Twiggs
Upson	E. W. Carter	Thomaston	R. L. Carter	Thomaston
Walker			J. H. Hammond	LaFayette
Walton	H. L. Upshaw	Social Circle	J. K. McClintic	Monroe
Ware	D. M. Bradley	Waycross	J. E. Penland	Waycross
Warren	F. L. Ware	Warrenton	A. W. Davis	Warrenton
Wayne	A. J. Gordon	Jesup	J. T. Colvin	Jesup
Washington	J. R. Burdette	Tennille	N. Overby	Sandersville
White				
Whitfield	Trammell Starr	Dalton	B. L. Kennedy	Dalton
Wheeler				
Wilkes	Lewis R. Casteel	Metasville	C. E. Wills	Washington
Worth	J. L. Tracy	Sylvester	W. W. Sessions	Sumner

RESOLVED, That the Medical Association of Georgia memorialize the American Medical Association in regard to this article.

THE PRESIDENT: You have heard this resolution, what is your pleasure?

DR. THRASH: I move its adoption.
Seconded and carried.

THE PRESIDENT: Is there any unfinished business, any committee reports or report of Council?

DR. BUNCE: The Council approved the appropriation of \$3,500.00 for medical defense. The Council asked that the question of the appropriation of \$250.00 for the Committee on Health and Public Instruction and the Cancer Commission be referred back to it with power to act, but that an appropriation be given that shall not exceed the amount asked for. They made this request because of the fact that they are considering the employment of a full time Executive Secretary to take care of some of the correspondence, and so on. It was suggested by the Council that a committee to be composed of the Committee on Hospitals plus the President and Secretary be appointed to

investigate the nursing situation in the state. Perhaps Dr. Cleveland Thompson might explain this.

DR. THOMPSON: It seems that all those doctors and nurses in the state who have the good of the profession at heart realize that there is a nursing problem in the state. As the matter stands neither the doctors nor the nurses have done anything to offer any cure for this problem. If things continue as they are one of these days the public will offer for a cure through the legislature and will make a mess of it.

DR. BOLAND: I would like to know what this problem is, overcharge?

DR. THOMPSON: People living out in country sometimes need a nurse badly. We call up Augusta and are told that there are sixteen nurses off duty, but none will go out. We call up Savannah and Atlanta and get the same thing. When a nurse does come if she sees fit to pack a half a dozen of the patient's blankets in her trunk, as happened not long ago, there is no redress. She is still on the nurses' register no matter what she does.

(To be continued in the August issue)

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Alabama	Iowa	Minnesota	New Jersey	Texas
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SYMPOSIUM ON DISEASES OF CHILDREN

(Continued from July issue)

STATUS THYMICUS IN CHILDREN*

William Nevin Adkins, M. D., and

William T. Freeman, M. D.,

Atlanta, Ga.

Chiefly through the medium of animal experimentation scientists have brought to light many interesting and startling facts concerning hitherto mysteries of the majority of the so-called glands of internal secretion; thereby proving their physiological function and mode of action, both in health and disease, their great influence on metabolism in general and on physical and mental development. But such knowledge humanity has profited and the medical profession has enriched its store of knowledge and enhanced its skill. In spite of the vast amount of scientific research by numerous investigators, the thymus gland appears still to be the same puzzling enigma that it has been for 300 years or more and as yet no definite uniformity of opinion or conclusion has been reached or accepted as to its function.

Practically all this research work has been done on lower animals in the way of extirpation of the gland and administration of the gland extract, seeking its true function.

These investigations have resulted in a marked diversification of opinion and no one as yet has been able to prove with any degree of certainty whether or not this gland produces a distinct hormone. There seems to be three schools, those who believe the gland does actually produce an internal secretion, those who believe it does not, that it is not essential to life, nor has it any effect upon metabolism, and those who believe that while it produces no internal secretion, it in some way is in close connection with other glands of internal secretion, and the production of lymphocytes.

Physiological involution of the thymus in man was first discovered by Galen¹, who thought the gland reached its maximum weight at birth and from that time on underwent atrophy. Various opinions have been expressed as to the time of life the thymus reaches its maximum size, and also its minimum activity. The present consensus of opinion is that the thymus increases in weight up to the time of puberty and during this time, or between the tenth and fifteenth years, it reaches its maximum of development and then begins to undergo a physiological involution but never disappears entirely during life.

R. G. Hoskins² states "that the literature as a whole affords little or no reliable evi-

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

dence that the thymus has any true endocrine function. It is of significance in the physiological and pathological processes merely by virtue of its lymphoid character. Whatever function it has probably is concerned with the defensive mechanisms against infections"

E. R. Hoskins³ states that "whatever be the real function of the thymus, certain it is that its production of an internal secretion has not been proven. It is equally difficult to prove that the thymus does not produce a secretion, but the burden of proof is upon those who support the former theory. A statement is not true because it can not be proven untrue."

Sajous⁵ says "the function of the thymus is to supply, through the agency of its lymphocytes, the excess of phosphorous in organic combination which the body, particularly which the osseous, nervous and genital systems require during its development and growth, i. e., during infancy, childhood and adolescence or later if need be."

Many investigators believe the thymus gland a hematopoietic organ, engaged chiefly in the production of the lymphocytes. That it has to do with the production of the lymphocytes is fairly well borne out by the investigations of many clinicians.

Symmers⁴ states, "The number of lymphocytes in the circulating blood may be accepted as a more or less reliable index of the degree of the lymphatic hyperplasia in subjects of status lymphaticus."

In our series of seven cases of enlarged thymus, proven by X-Ray, a lymphocytosis was constant, chiefly of the small mononuclears, the highest of which was 94 per cent with 91 per cent small mononuclears, the lowest of which was 50 per cent, with 42 per cent small mononuclears. A single X-Ray exposure reduced the lymphocytes in varying degrees in all of these cases. Whether or not this reduction will be permanent remains to be seen and further observations will be reported later. We are also, in a few selected cases of non-myxedematous idiocy in which the lymphocyte count is be-

low normal for age, administering thymus gland extract by mouth in an effort to increase the lymphocytes. Except for one case, our observations are too early to make a report at present. In this one case after two weeks' feeding of the extract the lymphocytes were increased. We are taking into consideration, however, the possible normal variations in the differential blood count in the young. We are also watching the blood calcium content in all of our cases to note any change made, both by the X-Ray treatment to the hyperplastic cases and thymus gland extract administration in cases in which we consider it applicable.

Uhlenhuth¹¹ reports experiments covering a number of years on the larvae of salamanders. He fed them from the beginning on an exclusive thymus diet. They showed a distinct inhibition of growth. He states these animals do not develop parathyroid glands until after metamorphosis. All invariably developed tetany which persisted until metamorphosis, at which time it ceased even though the exclusive thymus diet was continued. His conclusion is that the thymus gland does produce an internal secretion, but one which has a toxic effect, in that it is the factor producing parathyroid tetany.

Renton and Robertson¹³ did thymectomies on eight puppies thirteen to twenty-five days old. They state not the slightest effect was ascribed to loss of thymus.

Earlier experiments made by Guderhatsch¹² in 1914 and Abderhalden¹³ in 1915 showed that feeding thymus to frogs larvae only delayed their metamorphosis but did not retard growth. The value of their experiments is questionable, however, due to the fact that thymus fed to these larvae was from the glands of mammals. As frogs undergo metamorphosis and mammals do not, the natural assumption would be that there is a difference in the true function of the thymus as well as other glands.

Park and McClure¹⁶ in 1919 conducted extensive and careful research choosing dogs only two or three weeks old as advocated by

Klose. They concluded that the thymus gland is not essential to life; extirpation of the thymus produces no detectable alteration of the hair, teeth, contour of the body, muscular development, strength, activity; or intelligence in the experimented animals. They state that it probably does not influence growth or development but could not exclude the possibility of it causing retardation or delayed closure of epiphyses; that it probably produces no alterations in the organs of internal secretion. They admit the possibility that it produces well marked changes in the organs of internal secretion in the time immediately following thymectomy. However, this last point was not covered by their experiments. The literature is abundant on other experiments of a similar nature, too extensive to quote.

Hammer¹⁴ in his experiments on rats found that feeding thymus delayed development in the testes in the young males and caused degeneration of the testes in adults. They were all found sterile. No definite changes in the thymus gland itself was noted.

Symmers⁴ reports in 5,652 autopsies at Bellevue Hospital, status lymphaticus occurred 457 times or in 8 per cent. He states it is about six times more common in males than in females. No race is exempt.

In our series two are girls, one of them a negress, the remainder are boys. That thymic enlargement is quite common without clinical symptoms is well borne out by reports of various authors.

Greenthal⁶ reports in 2,000 consecutive children admitted to hospital, thymic enlargement was diagnosed in 90, or 4.5 per cent. Eighty-seven of these 90 gave no history nor presented symptoms of thymic involvement. Diagnosis was confirmed in all of these by the X-ray. Three hundred and fifty-one of his 2,000 cases had an X-ray picture of the thorax made for various reasons and of these 25.6 per cent showed enlarged thymus. He is of the opinion that as true figures, these are too low and that had an X-

ray picture been made of the entire 2,000 he would have found many more with enlarged thymic shadows.

Blackfan and Little⁷ in a study of 60 infants, found evidence of thymic enlargement in 29 or 48 per cent. These were unselected cases and presented no clinical evidence of enlarged thymus.

Friedlander¹⁰ states that Benjamin of Cincinnati found out of 225 new cases of children admitted in one year to his outdoor clinic, 8.4 per cent showed indisputable evidence of enlarged thymus.

Bourneville⁸ in a large number of autopsies on mentally defective children found the thymus absent in 70 per cent.

Morell⁹ reports that in 400 idiotic children with normal thyroids coming to autopsy over 75 per cent possessed no thymus.

Emmerson¹⁷ working in the alcoholic wards of Bellevue Hospital examined 1,000 patients suffering from the effects of attempted suicide from cocaine, morphine, heroin, alcohol and similar habituating drugs. Of this number 22 per cent showed the distinguishing characteristics clinically of status lymphaticus. He states that in the autopsy rooms of Bellevue Hospital it is of almost daily observation that suicides, degenerates and criminals who have met death by violence, present the characteristic conformation and anatomical changes of status lymphaticus.

Miloskavitch¹⁸ reports autopsies on 232 cases of suicide in which 80 per cent showed the signs of status lymphaticus.

Hammar¹⁹ states that in his studies, over a period of more than twenty years, in 300 normal and 500 pathological cases, he finds the thymus is never normal after death from disease or in extreme inanition.

There is considerable diversity of opinion as to the actual cause or causes of so-called thymus death.

Tracey²⁰ believes that thymus death is due to a superabundance of the thymic hormone and to an insufficiency of the adre-

nals. Paton²¹ advances the view that death is due to a polyglandular syndrome, with an undersecretion or absence of secretion, and because of resulting imperfect development, death occurs more easily than it otherwise would. McNeil²² believes it due to exaggerated anaphylactic phenomena. Woolley²³ thinks it due to a hyper-thymization. Weigert²⁴ discovered thymic tumor present in a large number of patients dying of myasthenia gravis.

Other authorities lean to the theory of mechanical pressure of the enlarged thymus on the trachea, heart and large vessels in the mediastinum, believing the younger the patient the more apt is death to occur from pressure. Supporting this theory in part is that the younger the patient the less developed are the cartilaginous rings of the trachea, therefore, less resistant. The same would apply to the lack of development and resistance of the muscular coats of the arterial system. In post mortem investigations at Bellevue Hospital they have never been able to connect death with thymic pressure on the trachea.

Regarding the question of whether or not the thymus has any connection physiologically with other glands of internal secretion is again a much mooted point. A popular belief is that it antagonizes the gonads, the pituitary and adrenals. That it antagonizes the gonads is supported by the fact that the thymus undergoes atrophy at puberty when the gonads are increasing their activity and taking up a new function. In castrated cattle²⁵ the thymus has been found to double the size of that in the uncastrated. This has also been found in dogs and guinea pigs. Another support to the theories of Klose is where in his experiments he found that after thymectomy the length of the long bones were diminished and after castration they were increased.

In the human, we know that in those individuals with hypogonadism pre-adolescent, the epiphyses ossify much later than normal, that they are tall and slender, that

the span is greater than the height, when normally it is equal; that the lower measurement is greater than the torso, when normally it is equal, post adolescent.

Many believe there is an intimate relation between the thyroid and thymus. After²⁵ thymectomy the thyroid of animals used for experiment becomes manifestly hyperplastic; also the reverse is true, that after thyroidectomy the thymus undergoes hyperplasia. In the Bernese Pathological Institute²⁶ 40 post mortems of new borns were made in 1910. In all of them there was a marked hyperplasia of both thyroid and thymus. Hoxie²⁴ states that it has been found that from 60 to 95 per cent of patients with Grave's disease had an enlarged thymus and that in such cases thyroidectomy without thymectomy (or the equivalent, radium or X-ray treatment) failed to relieve the symptoms. On the other hand such experienced observers as those of the Mayo Clinic²⁷ believe that if there is any participation of the thymus in exophthalmic goitre, its role is a negligible one. Crotti²⁸ states that marked muscular asthenia accompanying Basedow's disease is strongly diagnostic of an accompanying or complicating thymic hyperplasia. He also states that autopsies of many investigators, including himself, show that thymic hyperplasia not only accompanies thyrotoxic goitre, but that it may also be found in simple goitre; that the reciprocal relation between the thyrotoxicosis, is simple goitre and thymic hyperplasia is not accidental, but direct and that thymic hyperplasia is much less apt to be found in the earlier forms.

It has been found that after thymectomy²⁶ the adrenal bodies seem to undergo marked hyperplasia and the reverse is true where the thymus is enlarged or hyperplastic. Crotti, therefore, believes that there is possibly an antagonism between the thymus gland and the adrenals.

Supporting the theory of this antagonism is the fact that in myasthenia there is a

hypo-adrenalism with a resulting or accompanying low blood pressure and myasthenia appears to be a constant finding in enlarged thymus and in hyperthyroidism. Also many clinical investigators claim that status lymphaticus cases are particularly prone to anaphylactic reactions. The administration of adrenalin in the average anaphylactic reaction, as a rule will control it. For example, in the administration, particularly intravenously, of serums, with varying degrees of reactions, adrenalin is usually most successful as a remedy.

Maxwell²⁹ in 1916 showed that feeding of the anterior lobe of the pituitary exerts a retarding influence upon the thymus. This retarding effect was not prevented by the simultaneous intake of thyroid substance. After three month's feeding of anterior pituitary, post mortem examinations showed the thymus much smaller than in the animals used as controls. Park¹⁶ and McClure were unable to confirm these findings.

These findings of Maxwell would further support the theories of antagonism both between the thymus and gonads and between the thymus and the anterior pituitary, as it has been established that the anterior pituitary is closely correlated with the gonadal system and an under-function of this lobe of the hypophysis delays puberty in both sexes.

Klose²⁸ reported that in thymectomized dogs the spleen is often hyperplastic. He believes that the spleen to a certain extent takes up the function of the suppressed thymus. Park¹⁶ and McClure were unable to confirm this.

Crotti³⁰ believes that thymus gland metabolizes phosphorus as the thyroid does iodine.

Sajous³¹ calls attention of the relations of insufficient functioning of the thymus to certain types of low mental development and in particular to Mongolian idiocy.

Infantile marasmus³² has been attributed to impaired activity of the thymus. In 18 cases of this disorder reported by Ruhrah,³³ this organ was the only one which showed lesions. Thompson³⁴ also found marked

thymic atrophy in 20 cases in infants with marasmus under one year of age.

Many observers have reported changes in the osseous system due to thymectomy. Hasler³⁵ in 1918 found that injection of thymus extract hastens the healing of fractures in bones of rabbits. Engelbach and McMahon³⁶ report osseous retardation in their status lymphaticus cases, particularly in the development of the carpal bones. In our series of enlarged thymus the carpal bone development was either normal or advanced for age. We reported this to Dr. Engelbach and in reply he gave his opinion that our cases were not pure thymic cases and that other factors of an endocrin nature probably accounted for the unusual bone development. It would seem strange that seven consecutive cases should occur if he is correct.

In a personal letter from Dr. Geo. H. Hoxie of Kansas City, among other things, he states that he seriously doubts a distinct hormone from the thymus, as in all of his work the thymus was reduced in size and normal conditions restored by the administration of thyroid extract with the assistance of arsenic. He tried out other glandular extracts which gave no results.

If the administration of thyroid extract will reduce a hyperplastic thymus, it would seem that instead of a correlation between these glands there would be an antagonism. With above quoted reports of many observers, finding the almost constant hyperplastic thymus accompanying Grave's disease, what is the answer? Does the thymus enlarge in a compensatory manner or in an antagonistic?

It might be well to quote here the clinical picture presented by Emmerson³⁷ of Bellevue Hospital. "For the present it seems to me that a diagnosis of status lymphaticus is justified when we find in the case of a man, a decided scantiness of hair on chin and upper lip, scanty axillary and sternal hair, scanty or feminine distribution of pubic hair; the slender thorax, the

rounded contour of upper arms and thighs, with an arching of the latter; hypoplastic external genitals, particularly if associated with cryptorchismus and a delicate velvety skin. The diagnosis is further confirmed if we find hyperplasia of the lymph tissue of the nose, throat and tongue and an increase in the palpable, cervical and axillary lymph-nodes."

"For the identification of status lymphaticus among women, we rely on the peculiar character of the skin, of the body extremities, the scantiness of the axillary hair pad, the scantiness of the pubic and perineal hair and hypoplasia of the genital apparatus; and particularly slender thorax and extremities. Some women of decided status conformity had a marked growth of hair on face and upper lip."

The clinical symptoms of enlarged thymus in children, of course, are manifested in varying degrees of severity, chiefly, stridor convulsions, choking spells, dyspnea, asthma, various degrees of difficulty of respiration, fainting spells and at times sudden death. It has been pointed out that a large percentage of these cases present little or no clinical manifestations and also that enlarged thymus in varying degrees may exist undetectable to the X-ray. Therefore, we should become suspicious of this dangerous condition in unexplained noisy breathing, coughing spells, attacks of asthma and other enumerated symptoms. That these individuals are practically never constituted normally, even in other ways, emphasizes the seriousness of this condition and importance of early recognition.

After digesting the many and varied reports and opinions contained in the literature, who is it to say what the true function of the thymus gland is? Whatever may be its function and its *modus operandi*, certain it is that this gland must play a highly important part in the body economy in the human. It seems highly improbable that the biologists working on lower animals will be

the ones to finally solve the problem, so it is up to the clinicians by careful and persistent observation to finally work it out.

The clinicians as a whole are more in harmony in their opinions than are the biologists.

Taking into consideration the many pathological conditions in which the thymus is involved, brings up the question again, is the thymus itself responsible in any of them or is it brought into the vicious circle, secondarily; if so, is it because of its correlation with or antagonism to other glands of internal secretion? It cannot be possible that its involvement is merely a coincidence. Because the removal of the thymus gland from some animal in the hands of one or more investigators produces no demonstrable change and is not essential to life in that animal, is not proof positive that the same would hold true in humans.

That the thymus plays an important part in mentality appears highly probable from the reports above quoted. Emmerson's admirable picture of the status lymphaticus adult show perversion of mentality as well as physical make-up. Autopsies on them would probably show the interstitial cells of Leydig imbedded in the gonads of the female and interstitial ovarian tissues in the testes of the male, accounting in part for the perverted sexual make-up and secondary sexual characteristics. The persistence of hyperthymic function advanced for age found in suicides and degenerates of all descriptions emphasizes its peculiar effect on the mentality in the adult.

In our series of seven cases only one presented any clinical evidence of cretinism and that one only mildly so and none of any other glandular derangement. Their ages range from eight months to three and a half years. Five of them are boys, four of them presented interference of respiration. Only one of them showed evidence of retarded mentality and that one has mild symptoms of hypothyroidism. All of them presented symptoms of myasthenia gravis. All of

them showed a decided lymphocytosis. Further and more complete report of these cases and any others coming under our observation will be made at a later date, particularly concerning changes, if any of consequence, on the blood picture and blood calcium caused by X-ray treatment and feeding thymus gland extract in apparent hypothyrmism.

So little is said in the literature concerning under-functioning and hypoplasia of the thymus gland that in this article we have not gone into that phase to any extent. It is our endeavor through clinical observation to learn more concerning this condition. With hyperplasia of the thymus gland so much more common than is generally supposed, it is only fair to assume that the opposite condition is probably even more common, just as hypothyroidism is far more common than hyperthyroidism.

Let us all hope for and work in unison towards a common goal of success in finally solving the thymus problem, particularly that of searching for clinical manifestations which are definitely diagnostic of hypothyrmism.

CONCLUSIONS: 1. That regardless of reports from animal experimentation, the thymus gland plays an important part in the body economy. We should regard its derangements as serious.

2. That clinical and post mortem findings present strong evidence in favor of its close connection with dysfunctions of the recognized endocrine glands.

3. That as hyperplastic thymus is so common without definite clinical manifestations, all should be given the benefit of the doubt and treated accordingly (with X-ray or radium).

4. That when practicable all new borns should have an X-ray of the thorax made.

5. That when in doubt, a single therapeutic dose of X-ray to the thymic area will do

no harm and will probably help the existing condition as well as the diagnosis.

6. That before submitting our lymphatic hyperplasia cases to operations, it would be wise to have X-ray of the thorax made to rule out demonstrable thymic enlargement.

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A STUDY IN TETANY***C. Thompson M. D.,****Millen, Ga.**

In this study I have attempted to assemble the information in regard to tetany, especially from a practical standpoint. The work was undertaken because of the importance of the subject and because the information is so widely scattered. On account of the necessary brevity much of importance has been omitted.

Tetany is a condition characterized usually by symmetrical tonic spasms of the extremities, the muscles and nerves being abnormally sensitive to mechanical, electrical and psychic stimulation. It may be manifest or it may be latent to become manifest on provocation. The condition may be most atypical and has been mistaken for both major epilepsy and hysteria by some of the best observers. Indeed, formerly all of my cases in the adult were mistaken for hysteria and treated as such.

The disorders in which the condition occurs may be divided into two groups: (First Group) Those conditions which have in common a disturbance of the acid-base equilibrium, such as (1) excessive breathing; (2) overdosage with sodium bicarbonate; (3) pyloric stenosis, obstruction of the upper intestines, or excessive vomiting for any cause—all of which remove the hydrochloric acid from the system. (Second Group.) Those conditions in which there is a calcium deficiency in the blood; e. g., infantile tetany, parathyroid tetany, excessive diarrhoea pregnancy and lactation. The conditions enumerated in both groups have in common a decreased tissue calcium, which actuates an hyperexcitability in irritable tissues. Such a surmise is based on the observation that the union of calcium with collodies can be influenced by changes in the concentration of the ions of hydrogen, calcium, bicarbonate, phosphate, acetate, and nitrate, as well as by protein derivatives, especially guanidin.

For a long time it has been known that removal of the parathyroid glands is followed by severe tetany that is rapidly fatal unless promptly treated over a long time. This fact has enabled experimenters to produce the disease in dogs at will, and from observations in these most of our conclusions have been made.

Parathyroid tetany can be prevented or controlled by the intravenous injection of Ringer's solution or by the oral administration of calcium lactate. It can be done also, but to a less degree, by an absolute carbohydrate diet with the avoidance of intestinal putrefaction. After several weeks of this medication the animal can go without treatment and will not develop tetany except under the following circumstances: if it becomes constipated, if it is fed large quantities of sound meat or a small amount of spoiled meat, if he is given excessive exercise, if pregnancy or lactation exists at the time of supervenes, or if the animal goes into heat (the oestral period), tetany will recur but will yield to proper treatment. The parathyroidectomized animal that has been cured of tetany is still in a state of latent tetany, and these circumstances enumerated merely precipitate an attack.

It has been found further that tetany can be produced in animals by the injection of guanidin, which is a product of protein decomposition. This fact has been corroborated by the finding of this substance in increased amounts in the urine of man and animals with tetany and seems to bear out the contention of some observers that tetany is an intoxication. Also, it has been suggested that the function of the parathyroid secretions is to neutralize in some way these toxins.

Tetany in the human is very similar to the experimental tetany of animals. It is found under similar conditions, and the same things will precipitate an attack. There is a surprising number of cases reported in the literature in which the attack came on

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

while the patient was taking an enema. In this instance the toxæmia from the putrefaction in the intestines caused by the constipation is the real genesis and the irritation from the passage of the rectal tube is the mechanical excitant. The tetany of pregnancy and lactation is most generally recognized and is probably due to an increased demand for calcium at this time. Just why the period of heat in a parathyroidectomized animal should bring on an attack of tetany is hard to explain, but it is probably due to some upset in the endocrines. It is known that hyperthyroidism submerges the parathyroid secretion, and I have recently seen a young woman with hyperthyroidism who complained of numbness of the hands and face, with drawing of the hands after a severe exertion while playing basket ball. Also, on several occasions, I have been called to see a newlywed in typical tetany that I then mistook for hysteria. The attacks came on after the woman had had too much company, and in some of them I could bring it on at will by suggestion. However erroneous, the diagnosis, the treatment was effective and consisted of apomorphine hypodermatically, C. C. pills at bed time, and rest in seclusion. (In this connection it is well to be reminded that in prehistoric evolution, paleontologically, the thyroid gland and parathyroids were developed from the uterus, and that at a more advanced stage of its evolution it had a part to do with digestion as evidenced by the foramen caecum at the base of the tongue through which its secretion entered the stomach, and also by the occasional location of the thyroid gland in the root of the tongue.) The experience in feeding meat in experimental tetany bears out the clinical observation that proteids are harmful in tetany.

Tetany, then, can be caused (1) by reducing the acidity of the system, or (2) by increasing the alkalinity of the system, (3) by diminished parathyroid secretion, (4) by an insufficient intake of calcium in the food, (5) by an increased demand for calcium,

and, (6) by adding toxins to the system. Usually two or more of these factors are active.

From a clinical standpoint, it is most important to recognize tetany in its latency so that measures may be instituted to prevent its manifestation. Latent tetany can be said to exist usually in the following conditions. pregnancy, lactation, menstruation and possibly during excessive sexual indulgences, in excessive diarrhoea in which a large amount of calcium is removed from the system; in infancy when the child is fed on a diluted milk mixture with an insufficient calcium intake, in operations for thyroidectomy where the integrity of the parathyroids and their blood supply is interfered with; in hyperthyroidism, and in any condition that disturbs the normal acid-base equilibrium; e. g., excessive breathing, which reduces the carbonic acid of the system below normal; in excessive prolonged vomiting, pyloric stenosis, and high intestinal obstruction, all of which reduce the chlorides in the body; and last but not least in overdosage with sodium bicarbonate. Indeed, it is important that sodium bicarbonate be interdicted in all of these conditions. Especially is this so during pregnancy when it is most often used in unreasonable amounts for the heartburn common at this time. A glass of skimmed milk will relieve the symptom in a physiologic manner and at the same time is adding calcium to the system.

The symptomatology, like the pathogenesis, is varied and involved, and the key to the recognition of tetany is a clear comprehension of its pathogenesis. The carpo-pedal spasm when present is pathognomonic. The spasms, usually bilateral, may be unilateral and may involve any muscle or groups of muscles in the body, not excepting the involuntary muscles. The convulsion may be almost identical with major epilepsy, and frequently it is quite typical of hysteria. In the absence of an attack, latent tetany can be demonstrated (1) by the production of the carpal spasm by pressure from the arm band of a blood pressure apparatus (in

doubtful cases the pressure should be kept up at least five minutes), or (2) by sudden transitory spasm of the facial muscles from tapping over the facial nerve with a percussion hammer, and, by the production of muscular contractions with a galvanic current of less than five milliamperes. The spasmophilia of childhood is caused by tetany, and is characterized by the tendency to convulsions on the least provocation. There may be laryngismus stridulus, and a tendency to hold the breath on slight irritation. Indeed the child may show only irritability and restlessness. The muscular cramps in pregnancy and those from over exercise, as in swimming, are due to tetany, and its occurrence with achylia gastrica and disease of the gall bladder is significant. There may be tingling and numbness of the face and extremities during an attack. As would be expected, the autonomic system is profoundly upset as evidenced by falling of the hair, brittleness of the nails, transverse grooving of the teeth, or cataract formation, optic atrophy, or even necrosis of the fingers. Also, it is important to bear in mind that there is a depressive form of tetany without spasms or convulsions which is rapidly fatal unless recognized and promptly treated.

I know of no better way to convey to you an adequate idea of the symptomatology and pathogenesis of tetany than to cite the conditions and circumstances under which some of my cases occurred. An eighteen months old child that had been bottle-fed on peptonized milk became more and more irritable until he would go into a fit of crying on the least provocation. Lately on attempting to cry there would be a sudden holding of the breath until profound cyanosis and unconsciousness would develop, ending in a general convulsion. At first infrequent, the attacks were now coming on several times a day. Another four months old infant with bronchopneumonia following measles, gave a history of having been fed since the third week on malted milk alone. The mother said he had been the most irritable, crying

baby she had ever known, and that he had not slept a single hour since he was a month old except under the influence of paregoric. She did not hesitate to give him thirty drops at a dose. On the second day of treatment a marked carpal spasm developed and tetany, that had not been suspected, was recognized. A case of peritonitis in an adult of ten days duration was getting a soda enema two or three times a day for the meteorism, and owing to the intestinal paresis present, quite a bit of the solution was being retained and absorbed. About the third day of this treatment she became acutely ill and showed marked general rigidity and pronounced carpo-pedal spasm with rigidity of the jaws and internal strabismus. I saw two young women who had been in convulsions off and on all day. Their mother had just died after a prolonged illness from cancer, and both girls were manifestly undernourished and anaemic from hookworm disease. Every time there was a new outburst of weeping the spell would begin with the classic carpo-pedal system with tingling and numbness of the face and extremities followed by a general convulsion with loss of consciousness. A thin, nervous, overworked school teacher with mild hyperthyroidism, was taking an enema to relieve a temporary constipation when she was seized with a typical attack of tetany. It began with numbness and tingling about the face and extremities, and was followed by the tonic spasm of the extremities, but without loss of consciousness.

The most outstanding fact of the whole study is that tetany from whatever cause can be controlled and cured—and the drug par excellence is calcium. It is immaterial whether you use the chloride or the lactate; but it cannot be too strongly emphasized that it must be used in large doses. I use the lactate in teaspoonful doses in infants and I have seen nothing but good from it. During an attack, 2cc. of a 25 per cent magnesium sulphate solution given intramuscularly and repeated every three or four hours will relieve the spasm until the calcium can

be exhibited. The spasm can be relieved also by liberal blood letting. In general remove the cause if possible. That due to an alkalosis is best treated by large doses of decinormal hydrochloric acid, or by the administration of ammonium chloride, which is probably split up in the system into hydrochloric acid and urea. Finally in all cases from whatever cause relieve constipation, flood the system with fluids, give no sodium-bicarbonate, limit the proteids ingested, and secure quietude and rest. It is important to attend to any foci of infection that may be present. The diet should consist of those foods rich in calcium, such as milk, oatmeal, and vegetables, especially cauliflower. In this connection it has been shown that a growing child will not receive an adequate intake of calcium unless he gets at least one quart of milk a day up to the age of puberty. Cod liver oil is valuable but must be given in large doses, and let it be remembered that since tetany is a disease of the winter months the treatment should be continued well into the spring.

DISCUSSION OF SYMPOSIUM ON DISEASES OF CHILDREN

Papers of Drs. W. A. Mulherin, W. L. Funkhouser, R. L. Miller, A. J. Waring, W. N. Adkins and Cleveland Thompson

DR. THEODORE TOEPEL, Atlanta: Bone and muscle development depend largely upon nutrition. The fundamental well-being of children depends upon muscle and bone tissues. Where these tissues are unbalanced physical deformities are influenced. They may manifest themselves in deformity of the spinal column in the form of scoliosis, kyphosis or lordosis, or in bow-legs or knock-knees, splay-foot or club-foot.

Orthopedic surgery is mainly concerned with the stature of the body and its locomotion and the pediatrician who sees the child in the very beginning of its life should bear in mind the importance of observing the growth of bone and muscle structure of the young child; thus cooperating with the orthopedic surgeon in discovering early deformities which can be easily corrected when treated in time. It is a part of his duty to help accomplish a harmonious bodily development. The posture of the child influences the subsequent posture of the adult. It not only influences what we see but affects the organic conditions of the body. The lungs, heart and intestines are particularly affected by posture, also the reproductive organs. Posture has an important influence on the well-being of the human body from childhood through maturity to death. Not enough attention is paid to the postural development of muscle and bone. We are gradually drifting away from this fact because too much enthusiastic attention is being given to the glands. It has

not been fully substantiated by the reliable authorities of the country that the glands are principally responsible for the posture and development of the body as we have it and see it now. The bone and muscle content comprises the largest bodily substance and is of vital importance. I am very glad that the papers have brought out the question of food because proper feeding influences postural development.

DR. W. A. MULHERIN, Augusta: I believe we are all agreed that mother's milk is preferable to cow's milk when feeding a baby. The important point to stress, however, is that 90 per cent of mothers can nurse their babies if they are properly coached by the physician. As I see it there are five essentials which if carried out will bring success: 1st. The physician must be firmly convinced that the mother can nurse her baby; 2nd. The mother must be convinced by the physician that she can nurse her baby; 3rd. Both breasts must be stimulated at certain definite times, say three or four hour intervals. The best stimulation for breasts is the baby's nursing ten minutes on each breast; 4th. The breasts must be emptied by manual manipulation (finger milking), after the baby has nursed the breast; 5th. Perseverance on the part of the mother and the physician. If these directions are carried out it is surprising how many mothers can nurse their babies.

Mention was made about green colored stools. This has long been a bugaboo for mothers, and a source of much misunderstanding by the physicians. We have all been called up hastily, with the request, "Come at once, baby has had a very green stool." The fact that the stools are green in color does not amount to "a hill of beans" when we begin to analyze its true meaning. Normally the liver pours into the duodenum bilirubin, a red bile salts. If there exists in the bowels too much acidity, or too much alkalinity, or an oxidizing agent, all very harmless things, the red bile salt is converted into a green bile salt, called biliverdin. Its presence has absolutely no pathological significance, but on the contrary, bile in the stools, whether it be red or green, is exactly what nature intends should exist.

Again, mention was made of mucus in the stools. It is well to remember that the good Lord ordained that mucous glands should be located throughout the intestinal tract, for the purpose of lubricating the bowels so that fecal matter might be propelled through the bowels without injury. These glands secrete a normal amount when unstimulated. If irritating foods stimulate these glands to extra secretion an abnormal amount of mucus will appear in the stools. The same results may be obtained by giving a perfectly normal healthy baby a dose of castor oil. The castor oil stimulates the mucous glands to extra secretion, and an abnormal amount of mucus will appear in the stools. Therefore mucus, per se, is not of any serious significance.

Dr. Miller stressed some very good points in his paper relative to doing a half-way job for children. He well emphasizes tonsillectomy. The removal of tonsils and adenoids too often is looked upon as a panacea for all ills of babies and children. The fact is overlooked that diseased or hypertrophied tonsils may be only one of the contributing factors that is holding a child backward, and therefore unless proper feeding and hygiene, and the general building up and care of the child are looked after, the operation itself will be a failure, from the panacea standpoint. A child, after tonsillectomy, is entitled to special care, and should have its vital force raised as quickly as possible, so as to get away from the effects of the operation, and as quickly as possible receive the benefits from the removal of tonsils and adenoids.

Another good point in Dr. Miller's paper was the treatment of pyelitis. Oftentimes we can give a child

the alkaline or utropin treatment to the point of saturation, and no cure will follow. In such cases raising the vital force of the child will be the only way of curing the pyelitis. Therefore the administration of soda bicarb, and the general toning up of the child, is recognized to be the best treatment.

Waring and Adkins have brought out some very practical points regarding the thymus. The big points concerning thymic trouble should be conveyed to all physicians, that is, that thymic symptoms may exist without the X-ray showing any enlargement of thymus, or vice versa, the X-ray picture may show a large thymus and no symptoms follow. It is therefore a good rule, especially in the newly born, when cyanosis exists to rule out the existence of congenital heart trouble, pressure on the brain, congenital atelectasis, as the cause of the cyanosis, and if these causes are negative, it is fair to assume that enlarged thymus is causing the symptoms, and X-ray treatment should be given. Recently we have been studying all cases of the newly-born at the University Hospital, by X-raying the thymus. It has proved a most interesting study, and such study, I feel quite convinced, has saved quite a number of lives of our newly-born babies.

Dr. Thompson, in his paper on tetany, has covered his subject remarkably well. This is a very important subject, and in the domain of pediatrics. It is too often overlooked, and as a result of convulsions, a very common symptom in this disease, many children's lives are lost. I recall a similar case to the one reported by Dr. Thompson. A baby who was in misery rather continuously. It seemed to cry almost incessantly. It had a double hernia, and at first this was thought to be the cause of his crying. He had been taken from the mother's breast on the belief that the mother's milk was not agreeing. All sorts of milk preparations had been given for relief. This baby showed a general tonic spasm of his muscles, a typical carpedal spasm, Chvostek's sign, decreased calcium in the blood. Erb's reaction, thereby showing that his trouble was tetany. The baby got relief with magnesium sulphate, grs. 10, hypodermically every four to six hours, and calcium chloride, grs. 10 by mouth, every four hours. The important thing to bear in mind about tetany is that it can be controlled, very effectively, by the administration of magnesium sulphate hypodermically, and calcium salts by mouth, during the active stage, and the administration of cod liver oil, proper feeding and plenty of sunshine during the latent stage.

DR. A. J. WARING, Savannah: In a recent article by Dr. Veeder he made the statement that the pediatrician in former days was an expert selected to treat a crying child by higher mathematics. That really was the old plan and if you go to Boston now you will find split proteins and that sort of thing to your heart's content, but there has been a constant tendency to get away from complicated milk modifications. I think simplification was partly in Dr. Marriott's mind when he worked on this problem for there is much reasonable objection to so-called modified milk.

Dr. Mulberin has left the idea in our minds, just a little, that this food is a panacea for all ills—that we can feed any baby, sick or well, premature or normal any amount of acidified milk and it will get along perfectly satisfactorily. I do not think that is quite true. I do not think we have any one food that does for all babies, sick or well. Undoubtedly it is excellent in many cases, but not in all.

There are a few points I wish to emphasize which were brought up by Dr. Mulberin. A child comes in from out of town, obviously badly fed. We straighten it out fairly well and it goes back to the country. How

can we keep such a child going ahead? Sometimes the case can be handled by mail and sometimes not. The great virtue of mother's milk is that one has the same food all through infancy, simply varying in amount. That is the great advantage of acidified milk and these children, once they get started on it satisfactorily, go straight ahead. Besides fixed composition the small liquidity is another point. Youngsters are never intended to have large amounts of liquid food put into their stomachs. This is a large calorie food of small bulk, which is a good thing. There is also no doubt that acidified milk obviates many of the diarrheal attacks of the summer.

DR. W. T. FREEMAN, Atlanta: Discussing Dr. Adkins' paper, one thing that does not need stressing is the fact that we know practically nothing about the functioning of the thymus gland. In our series of cases of hyperplasia of thymus glands there seems to be a fairly constant increase of the small mononuclear blood cells well above the normal percentage for the child's age. The reverse of this seems equally true. The hypoplastic cases have a relatively low mononuclear blood cell count. We have not proven this but our work seems to indicate that this last blood picture can be changed by feeding thymus gland to the patients.

The medical profession in general seems to be definitely divided as to its attitude to endocrinology in general and particularly so concerning the thymus gland. There are those who believe that this gland has a definite physiologic function and those who believe it has none. I believe this division is entirely wrong. Those of us who are studying the thymus may be over enthusiastic, but to say that this gland has no function, nor has any influence over the human body is, I think, much further afield.

If as clinicians we keep in mind the fact that this gland certainly shows wide variations as to size and probably as to function, we will be of more help to our patients and perhaps arrive at the correct answer to this question.

DR. CLEVELAND THOMPSON, Millen: The use of Acidified Milk is probably the greatest advance ever made in the artificial feeding of infants. It is a long hark from the addition of alkalis to cow's milk in infant feeding to the addition of acids. Normally, mother's milk is on the alkaline side of neutrality and cow's milk is on the acid side of neutrality; but this does not take into consideration the great preponderance of buffer substance in cow's milk. The child cannot digest whole cow's milk because all his available hydrochloric acid is used up by these buffers; and so, it was necessary to dilute the milk to secure its digestion, and as a result the child was under-fed and did not gain in weight. Acidified milk is whole milk in which the buffers have been saturated with lactic acid; and it furnishes an easily digested and concentrated food. I have used this milk in every case in which I have had the opportunity to use it for several months. It has been eminently satisfactory from my standpoint, it has been just as satisfactory for the mothers, and most of all, the babies are satisfied and grow off normally. I am free to admit that heretofore I have been a failure in infant feeding. I got a lot of babies by, it is true; but the methods at my disposal were not fool proof enough to keep the mothers from killing them by some slight carelessness. My information is that feces mixed with this acidified milk will not show a growth of organisms on culture, so it is of especial value where ice is not available.

It is my opinion in this connection that when the profession gets away from the use of alkalized, diluted milk, that there will be seen less infantile tetany,

because the infant whose hydrochloric acid is used to neutralize these buffers is suffering from lack of sufficient acid in the system as well as insufficient food.

DR. JOSEPH YAMPOLSKY, Atlanta: I am glad that since the birth of Christ we still have the breast feeding and it seems to me it is the only food worth championing. If this is done I can see the future race of America much different. The ladies who are now busy with bridge parties have no time for feeding babies at the breast. I can see that the race is bottled-fed, and later in life fed from the hip bottle, and that is the situation that is facing America today. I think Dr. Funkhouser has one of the champions in the State of Georgia, and I congratulate him.

In reference to Dr. Mulherin's paper, reporting a case, I would like to mention one. I was called to see a baby, or a boy about eight, that I recognized as having appendicitis. I found an enlarged thymus. It was a question of death or life and the surgeon was called and operated with gas oxygen and local anesthesia. For some time the patient did well and then developed a typical picture of edema. He was kept constantly on oxygen for forty-eight hours but developed a typical double lobar pneumonia, from which he recovered. This illustrates how we may get away with it if we have to do something for them at once.

DR. N. M. MOORE, Augusta: My own experience is that this food is most satisfactory. I think we can look to it for our first choice if we have to resort to artificial milk. One of the beauties about the lactic acid milk is that the lactic acid is completely burned in the body and there is no danger of disturbing the acid-base mechanism, but I think we must not allow our enthusiasm to run away with us. We must remember that breast feeding is what was intended for babies, and I am glad for Dr. Funkhouser's paper along this line.

A student told me just the other day of an undernourished baby that was brought to the clinic. The mother had insufficient milk and of a poor quality. She was given minute directions about preparing and giving the lactic acid milk and when she came back in two weeks the baby had gained two pounds. However, inquiry developed the fact that the mother had taken the lactic acid milk instead of giving it to the baby, her milk had improved and the baby naturally thrived.

DR. GEORGE L. ECHOLS, Milledgeville: What Dr. Thompson has to say is very interesting; however, we must keep in mind the "so-called hysterical reactions."

I wish to mention a case recently seen on my wards, a woman who had a rectal fistula, had undergone two operations, acquired the morphin habit, taking as much as 100 grains per day by hypo, etc. She was not insane. After a rapid withdrawal of the morphin, she suffered from constipation as a result of the rectal fistula, and an enema was given. Following this enema, she began jerking, crying, breathing very rapidly, and calling for the doctor to "give her a shot." A shot of apomorphin was given, and as soon as the vomiting was over she was given C. C. pills, and improved rapidly.

Was the above an attack of "so-called hysterics," a strenuous effort to get another good dose of morphin, or was it a case of tetany?

DR. J. M. ANDERSON, Columbus: Whenever I hear the subject of saving babies discussed, I always wonder whether or not we are really wise when we have the temerity to bat squarely in the face of that factor in evolution which is the greatest factor, or almost the greatest factor, of natural selection. Meaning by that, are we really wise in saving all the babies? The fact remains, if we go back to old Malthus who was wiser

than he was thought to be, that the population is really increasing by geometrical progression, whereas the means of sustenance is only increasing by mathematical progression. In every state the medical profession is succeeding in increasing the span of life by saving babies but are we wise in doing this? I would not say this if I were talking to a body of students or immature doctors, but we are of mature years. The time has undoubtedly come if you will just read Professor East of Harvard, "Mankind at the Cross-Roads", you will see that within the next one hundred years the world is going to be overpopulated. There will be more people than can exist and it will be necessary to do one of four things, kill by war, starve, die of disease, or just one other thing and when you say that you are encouraging the criminal element in the medical profession, and that is birth control. You have to teach in your colleges and elsewhere the legitimate ways of contraception, or birth control. I firmly believe that every normal minded woman should be permitted to have just as many and just as few children as she desires, and that every abnormal minded woman should not be permitted to have any at all.

DR. R. L. MILLER, Waynesboro: I firmly believe the best thing for the child is the mother's milk and for that purpose we should see that the milk is of the best quality, that the mother has the food and exercise that is necessary to produce the best milk for her offspring. It is a boon to know that in the lactic acid milk we have something that so nearly meets the needs of the child.

In regard to the thymus, I think the subject of endocrinology has not been sufficiently studied in children, especially by the general practitioner who sees the vast majority of these cases.

I think Dr. Thompson sounded a note of warning when he mentioned the effect of bicarbonate of soda in producing tetany. The opinion has gone abroad in the land, and even the laity has taken it up, that we can give soda and keep down acidosis, and we want to impress them with the fact that they should not give soda but supply an abundance of liquids.

DR. W. N. ADKINS, Atlanta: Dr. Miller's paper is very interesting and instructive and he has brought out some valuable and timely points.

I wish to call attention to the method of collecting specimens of urine, particularly in its connection with pyelitis. An ordinary specimen of urine collected from the female child will almost invariably show the presence of pus cells. The reason for this is obviously anatomical. Such specimens should be collected only after the most thorough and pains-taking cleanliness around the entire vulva, particularly around the urethra. Catheterization should be the very last resort and is seldom necessary.

With regard to Dr. Thompson's paper on tetany, it has been very definitely shown that the parathyroid glands are intimately connected with calcium metabolism and if these glands are under-functioning the intake of calcium will not be properly metabolized but will be excreted as waste material. The administration of calcium will be greatly enhanced if accompanied by the administration of parathyroid extract.

I wish to come to the defense of mothers, particularly those who have been accused of neglecting to nurse their babies in favor of their social activities. I have read and heard a good deal about such mothers, but have yet to find one. I have practiced pediatrics for about twenty years and all the mothers I have come in contact with possess the normal maternal instinct, at least in that particular and have always intelligently cooperated when made to understand the great advantage of maternal breast milk over any form of

artificial feeding. There is no doubt that mother's milk contains elements beyond the laboratory's power to analyze. She gives to her offspring, through the medium of her milk, the defensive elements from her glands of internal secretion.

Dr. Funkhouser's paper is very timely and I wish to emphasize the inadvisability of removing a baby from the breast until every recourse to make the milk properly suited to the individual baby, has been exhausted.

DR. W. L. FUNKHOUSER, Atlanta: In discussing Dr. Miller's paper I wish to stress particularly the convalescent care of the child. When they begin to improve after a serious illness we are so delighted, that we so often fail to watch the convalescence, that is until they have regained their normal weight. Often the schools require the return to their classes or the child loses his seat so they return to school before they have recovered entirely from their illness. When it is realized that one third of the school children of the country are under weight we can realize that there is great difficulty in their doing the work that is put upon them and at the same time be strong enough to resist infection. The treatment for malnutrition is practically the same as for tuberculosis, good nourishing food, fresh air, sunshine and rest. If we overcome the malnutrition we will have a child who should resist tuberculosis; this is the way we should attack our tuberculosis problem.

DR. W. A. MULHERIN, Augusta (closing on his paper): I am glad of the opportunity to make my position clear. My paper does not treat of the relative value of breast milk versus artificial feeding. I stated very clearly in my paper that pediatricians should give to babies, breast milk, first, last, and always, when obtainable. Without endeavoring to lay any special claim on priority, I have always advocated most strongly that mothers can and must nurse their babies. When, however, this cannot be done, then my belief is that acidified milk with Karo syrup is one of the best artificial feedings to be given the baby. It is result producing, also surprising what good results will be obtained from it.

In regard to Dr. Toepel's remarks, he stressed a very good point about bone and muscular development. Babies fed on acidified milk with Karo syrup develop excellent muscular tone and apparently normal bone structure. Again, let me state that I do not think acidified milk a panacea. We have no panacea, but I have never found a sick or well baby that did not do well on this food when intelligently used. I have tried it out in private practice, hospital work, preventive clinics, sick clinics, and have accomplished very gratifying results. Marriott, who gave us this method of feeding, has tried it out on a much more extensive scale than I, and his results have likewise been most gratifying.

Regarding Dr. Yampolsky's fears, I think they will never materialize, if acidified milk is used.

In reply to Dr. Thompson's question will say that it is better to keep all cow's milk on ice. However, acidified milk inhibits bacterial growth, and therefore it is not essential for it to be kept on ice. For country use, where ice is not obtainable, it might be kept in a cool place and used with no ill results.

Lactic acid milk has been cultured with dysenteriae bacilli, and in 24 hours no growth could be obtained. Likewise cultures of colon bacilli, taken from babies' stools, have been planted in acidified milk, and in 24 hours no growth could be obtained.

As mentioned in my paper, Dr. Faber of San Francisco uses one-tenth normal hydrochloric acid to acidify milk, in place of lactic acid. He uses 1 ounce of

this hydrochloric acid solution to 3 ounces of milk. In a formula of 30 to 40 oz. mixture this will give a large amount of hydrochloric acid. As hydrochloric acid is not burnt up in the system, like lactic acid, it necessarily throws a strain upon the elimination organs, especially the kidneys and therefore it is not the method of choice for acidifying milk.

In the case reported by Dr. Moore, where the mother drank lactic acid milk, instead of the baby, and the baby gained in weight, I might say that I know of no harm that acidified milk can do mothers. There are too many brilliant results, that can be shown by normal gain in weight in babies taking acidified milk with Karo syrup, to give rise to any serious question about psychic effect.

Again, let me repeat that my recommendation to general practitioners and pediatricians is, first to secure all the breast milk obtainable, and when in need of an artificial feeding to use acidified milk. There is no one who recognizes more fully than I that we have most excellent pediatricians in Atlanta and Savannah, and their work is comparable to the best of work done in other places. However, I feel that when they try out lactic acid milk a little more thoroughly, and probably on a more extensive scale, they will become as strong advocates of the use of lactic acid milk as I am.

DR. W. L. FUNKHOUSER, Atlanta (closing on his paper): The function of our work is to preserve the growth and development of children, and the first thing we should do is to see that the child is born well. We should see that the public understands and appreciates this, as it is the keystone in their development. The next important factor in their growth and development is breast milk. I agree with Dr. Adkins that the average mother is anxious to nurse her baby. It is up to us from the standpoint of salesmanship to sell her breast milk. There may be a few women, but I think they are very rare, who look upon the baby carriage as a blunderbus.

DR. R. L. MILLER, Waynesboro (closing on his paper): I wish to thank Dr. Adkins for mentioning the fact that we frequently find pus in the female child's urine. I took it for granted that the physician would cleanse the parts before trying to obtain a specimen.

As to Dr. Funkhouser's remarks regarding environment I fully agree with him and I wish to impress the fact that tuberculosis so frequently follows the acute exanthema, and that this should attract the physician to the means that should be used in the treatment of the convalescent child. We should all realize that if we meet the needs of the convalescent child thoroughly, we are also doing away with probability of a tuberculosis child, and this can be done by putting them on proper diet and plenty of rest and fresh air.

DR. A. J. WARING, Savannah (closing on his paper): I do not know whether Dr. Mulherin altogether understood my observations on acidified milk. I have been using it for several years and think it gives perfectly splendid results. The idea I wish to give in my remarks is that because it does give excellent results we should not throw everything else overboard. There are other feeding methods also that are good.

As far as the papers presented by Dr. Adkins and myself on the thymus gland are concerned, I find that Dr. Adkins, as well as myself, was appalled by the enormous amount of work that has been done. One finds investigations totally contradicted by the next investigator, which shows how little is known about the thymus gland at present. The important thing for us all to recognize is this main factor: That the thymus

gland in infancy and childhood in a hyperplastic state very frequently produces a rather constant and dangerous clinical picture which can be almost immediately relieved by radiation with X-ray or radium. I think this is the point we should carry away.

DR. W. N. ADKINS, Atlanta (in closing finished reading his paper): I was very sorry this paper was too lengthy to finish in the specified time and allow me to discuss it as I would like. Its chief purpose is to call attention to the frequency of the existence of thymic disturbances in children and the seriousness of these conditions; that status thymico-lymphaticus children are extremely susceptible to intercurrent infections and succumb to them far more readily than the normal, has been definitely proven.

DR. CLEVELAND THOMPSON, Millen (closing): With regard to feeding parathyroid in tetany, in animals it was found to be of no value and the effect of calcium alone was entirely satisfactory, so much so that they did not use the parathyroid substance in this condition.

In regard to Dr. Echol's query as to whether his patient had tetany or not, if she had the carpal spasm it was tetany and if not it was malingering.

INTESTINAL PROTOZOA*

V. P. Sydenstricker, M. D.,
Augusta, Ga.

The infections due to unicellular intestinal parasites are perhaps nowhere in this country more prevalent than in our state. These diseases have been endemic with us for many years, and the war, with its mingling of races from all parts of the world under ideal conditions for the dissemination of much protozoa, has sent us back many new carriers of infection. Our climate is most favorable for the propagation of these diseases. We have been through the period of hookworm education. The layman is familiar with the organism, its life cycle and the symptoms caused by infestation. The protozoal infections are no less frequent, no less active as causes of debility and economic loss and they should be sought for with no less assiduity. Like the hookworm and typhoid carrier, the infested individual constitutes a menace to the public health.

Of these diseases the most important, as well as the most frequent is infection with *entamoeba histolytica*. The organism needs no description; we are prone, however, to overlook the varied manifestations of its presence. Acute dysentery with frequent

painful stools, tenesmus, much mucus and blood in the feces, tenderness over the colon and rapid loss of weight and strength, is a complex that is almost pathognomonic. When these symptoms are present we look for amoebae. It is the chronic cases to which I wish to call particular attention. These may present any of four pictures.

The most common is that of the so-called "gastro-intestinal neurotic." These patients have "indigestion," often of the most ill-defined type. They have a little discomfort after eating, they suffer from "gas," they have "bilious attacks" in which they may be slightly jaundiced. They have vague abdominal pain, usually they are chronically constipated, with once or twice a year an attack of diarrhoea lasting a few days. They are great dieters and are often badly undernourished as the result of eliminating first one food then another in the effort to obtain relief. On physical examination they show a subnormal blood pressure, general tenderness over the colon with a thickened tender sigmoid, and frequently a slightly enlarged tender liver. They have a low grade secondary anaemia with slight eosinophilia. Their stools are typical of spastic constipation, with some mucus and frequently flecks of blood.

The second group are those with definite gastric or intestinal complaints. These may closely simulate gastric or duodenal ulcer on the one hand or mucus colitis on the other. The gastric cases give a rather typical ulcer history. Pain after meals, often of great severity, nausea, often with vomiting, frequent acid eructations. The symptoms tending to have vernal and autumnal exacerbations. Physical examination reveals tenderness over the epigastrium, sometimes with a definitely palpable pylorus. There is tenderness likewise over the colon, particularly over the cecum and sigmoid, the sigmoid may be palpable. Examination of the gastric contents shows a marked hyperacidity but no blood. Radiographic examination of the stomach may be most deceptive. There is a large hypermotile stom-

*From the Department of Internal Medicine. University of Georgia Medical Department.

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

ach with marked and persistent pylorospasm but no definite craters, just the picture that is found in early posterior wall ulcers. Unless the possibility of reflex pylorospasm from colonic irritation is kept in mind these patients may be needlessly subjected to surgical intervention.

Intestinal symptoms may predominate. In these cases there is a history much like that of mucous colitis. Alternating constipation and diarrhoea, associated with griping and cramping pains referred to the regions of the transverse and descending colon. There is frequent passage of masses of mucus, even of mucous casts with prolonged griping preceding and accompanying the expulsion of the mucus. The casts show numerous tiny blood flecks on their surface arranged in arborescent patterns corresponding to the intestinal vascular distribution. Physical examination shows tenderness over the entire colon, frequently with a palpable, thickened descending colon and sigmoid.

The third group of cases is composed of those with allergic manifestations, simple urticaria, giant urticaria or asthma. Frequently these are associated with the ingestion of certain articles of food, and naturally are diagnosed simple food-protein intoxications. In many cases there is, however, no demonstrable relation to any exogenous protein. Like all individuals subject to food allergy, these patients have many gastro-intestinal disturbances. The nature of these is often suggestive, particularly when they coincide with an attack of urticaria or asthma. Griping pains in the lower bowel with moderate diarrhoea and mild tenesmus should always suggest the probability of protozoan infection.

The fourth group are those with arthritis. These may be acute or chronic, mild or severe. Frequently the arthritic attacks are associated with one of the symptom-groups mentioned above, when this is the case the joints are painful during exacerbations of the other symptoms; there may be enough

redness and swelling to suggest gout, especially when a gastro-intestinal attack is coincident. In other individuals the arthritis may be the predominating complaint. These present the picture of subacute or chronic infectious arthritis involving many joints. The disease may be of the utmost severity, associated with fever, loss of weight atrophy of muscles and ankylosis of joints. Usually there are associated gastro-intestinal disorders, but these are always secondary in the patient's consideration. A history of dysentery is often obtainable and almost always there has been alternating constipation and diarrhoea with passage of mucus in quantities. Too often we sacrifice teeth and tonsils, open sinuses and drain gall bladders without any relief before we make any careful study of the stools. Amoebae, when present are probably not the direct cause of the joint changes, but the bacterial toxins which do cause them enter the circulation through the ulcerations produced by the amoebae.

Secondary to amoebiasis in importance, but nevertheless surprisingly frequent, are the flagellate infections. It is a tradition that these organisms are non-pathogenic. On the contrary they may and do produce disease which is manifold in its symptomatology. Not infrequently there is mixed infection with amoebae and one or more of the flagellates, the amoebae are recognized and eradicated, but symptoms due to flagellates, persist. The organisms which are endemic in this locality are *Giardia* (Lamblia) intestinalis, *Cheilomastix*, *Mesnil* and *Trichomonas hominis*.

The most common symptom caused by this group of parasites is recurrent diarrhoea which often assumes the proportions of a severe colitis. The attacks may come at intervals of a few weeks or there may be months of quiescence. The diarrhoea is characteristic. The first bowel movement is seemingly precipitated by eating breakfast, then follow four or five movements during

the forenoon, there is much griping and sometimes marked tenesmus. The stools are at first pultaceous or "yeasty," becoming foamy or watery on the second or third day of the attack. In these stools the organisms occur in myriads. The diarrhoea may be accompanied or preceded by general malaise, anorexia or even nausea. Mild attacks of cardiospasm or pylorospasm are frequent. In the interim between attacks the patients suffer from spastic constipation.

In addition to the attacks of diarrhoea patients with flagellate infections may present any of the groups of symptoms associated with chronic amoebiasis. Ill-defined gastrointestinal disorders, symptoms dependent on pylorospasm or spasm of the colon, allergic phenomena and arthritis. These may be of equal severity with the symptoms due to amoebae. The abdominal tenderness is not so marked in the flagellate infections and one seldom finds an actually firm resistant sigmoid on palpitation. Moreover the stools do not contain blood as this group of parasites do not produce actual ulceration of the intestine.

The diagnosis of these infections depends entirely on the degree of thoroughness with which the examination of stools is carried out. A prime essential is the repeated examination of freshly passed stools that have not become cold. Cysts may be preserved and recognized after a considerable time, but the vegetative forms of the parasites disintegrate rapidly.

Entamoeba histolytica is so well known that description is superfluous. Its large size, clearly differentiated endoplasm and ectoplasm, erythro-phagocytic activity and active motility render confusion unlikely. The cysts likewise are easily recognized and if doubt exists as to their identity the addition of a drop of Grams solution to the preparation brings out the nuclei so that they may be counted with ease.

In the case of the flagellates much confusion arises from faulty observation. *Giardia*

and *Cheilomastix* may be mistaken for the relatively innocuous *Trichomonas* on casual inspection. Whenever flagellates are found they should be examined under the highest power of the microscope, both in the living state and after treatment with iodine. It is of great advantage to study specimens fixed wet with Schaudinns solution and stained with iron-hematoxylin, cysts especially are rendered more easily identified by this procedure. *Trichomona* is easily identified under any circumstances by its oval shape, its three anterior flagellae and by the presence of the undulating membrane. It is very actively motile darting through the fluid channels of the preparation at great speed. This organism is not known to form cysts so that examination of fresh stools is absolutely essential to its recognition.

Cheilomatix is frequently confused with *Giardia*, but is readily differentiated by its somewhat smaller size, active motility and "twisted" appearance. There is no undulating membrane, the four flagellae are characteristically disposed, three projecting forward from the anterior pole, while the fourth lies within the buccal orifice and has a flickering rather than a propulsive motion. The buccal orifice is relatively enormous, passing spirally about the anterior half of the parasite. The caudal portion is frequently twisted spirally. The cysts are minute, refractile, oval bodies slightly larger than red blood cells, with a projection at one end which gives them the shape of a lemon. There is a single round nucleus.

Giardia is more common than *Cheilomastix* and certainly is more frequently recognized. It is the largest of the three flagellates under discussion, measuring from 12 to 15 micra in length. Shaped like an elongate pear, it has two large sucking discs at the larger anterior end. These discs give the organism its curious "spectacled" appearance. There are eight flagellas arranged in pairs, an anterior pair projecting laterally from the sucking discs, a middle pair arising just below the discs, a ventral pair projecting

backward along the ventral surface, and a caudal pair forming the parasites tail. *Giardia* has no great motility, it progresses by a series of jerky movements and frequently attaches itself to fecal particles or to the glass of the slide. The cysts are relatively large averaging 12 to 14 micra in length, oval in shape, with two or four nuclei depending on the stage of development. A characteristic feature is that the protoplasm does not entirely fill the cyst, leaving a small space at one end.

The treatment of these infections cannot be discussed here in detail. Emetine and ipecac given in adequate dosage with proper rest and dietary regime, will cure amoebiasis. The various other remedies have no advantages, and in our hands have not proved efficacious.

The flagellate infections are at present not satisfactorily treated from the standpoint of eradication. It is possible, however, to materially reduce their numbers in a given case, and relieve the symptoms. Numberless remedies have been advocated. Emetine, ipecac, quinine, methylene blue, turpentine and arsenamine all have their advocates. With the exception of quinine, none of these drugs are highly toxic for flagellates in vitro, and none have given encouraging results in our hands. Purgation alone reduces the numbers by mechanical removal. We have found that oral or transduodenal administration of salicylic acid in one gram doses, immediately followed by large doses of Epsom salts, gives more satisfactory results than any other form of medication. Salicylic acid destroys flagellates in vitro in dilutions as high as 1-175,000. Daily administration of this drug, with purgation and with colonic irrigations of 1-10,000 solution of quinine over periods of a week has produced disappearance of the organisms from the stools, cysts as well as vegetative forms, for as long as three months, with symptomatic relief over a much longer time. It is possible that monthly or bi-monthly repetition might eventually eradicate the infection.

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DISCUSSION OF THE PAPER OF DR. V. P. SYDENSTRICKER

DR. THEODORE TOEPEL, Atlanta: Dr. Sydenstricker brought out a point in which I am very much interested, namely, arthritis. This was formerly thought to belong exclusively to the adult but, unfortunately, we have discovered that children also suffer with it. After we have investigated the condition and determined its true cause, as to abscesses of the teeth, enlarged and infected tonsils, possibly infected ears, we come to the point which Dr. Sydenstricker stresses, intestinal protozoa. You will find that there are a number of cases in which, after every other cause has been eliminated, careful, scientific investigation of the intestinal tract will reveal the cause. Then you will be able to give the child relief from arthritis by proper elimination, as the doctor says.

One other factor in the treatment of arthritis is complete rest. That seems to be overlooked by many physicians. We have heretofore stressed the subject of immobilization and exercise but research has proved that rest is an important factor in selected cases. First stop the inflammatory process in the joints and then by proper elimination remove the toxin and alleviate the condition.

REPORT OF A CASE OF CYANOSIS DUE TO POISONING FROM SHOE DYE

Harold I. Reynolds, M. D.,
Athens, Ga.

On March 18, 1924, a patient walked into my office in an alarming state of cyanosis. His lips, ears, and finger nails were a deep blue; his face pale, yet he complained of no discomfort. The condition was first noticed by friends, the patient stating that he would not have known that he was ill. Physical examination was negative except for cyanosis. Temperature was normal; pulse regular, of good volume, 80 to the minute. Blood pressure was S-118, D-80. The blood obtained by puncture of tip of finger was abnormally dark. The blood smear, both stained and unstained, showed no noticeable destruction of red blood cells.

In an effort to discover some cause for the symptoms the patient was minutely questioned in regard to food, drink, drugs, possible exposure to gas, etc. He had taken no drug during the day or the day preced-

ing, he had eaten the same food as the other people at his boarding house, but of late had been eating irregularly and occasionally between meals. He thought he was not in the best of physical condition because he had been working hard and had lost considerable sleep during the past week or so. On the 18th he had been in his room all day, not dressing until about 1 P. M. About three hours later the cyanosis was first noticed.

Treatment was begun by placing the patient in a reclining position, head lower than feet, and the administration of oxygen. This did not improve his color even though kept up for at least two hours. By this time he was complaining of headache and slight dizziness. By chance one of his friends remarked that the patient had had his shoes dyed the day before, and that he knew of a boy who had been similarly poisoned. The shoes had not been removed, but this was immediately done. The patient was put to bed, surrounded with hot water bottles, and salt solution given by rectum and by hypodermoclysis. Shortly after he was put to bed he vomited and complained of rather severe headache. Under this treatment he began to improve and in the course of about three hours was almost entirely normal in color. About 4 A. M. the R. B. C. were 4,224,000; this was after the cyanosis had practically disappeared, only his finger nails being slightly blue. Haemoglobin was about

85 per cent. By 9 A. M. he was feeling fine and appeared to be of normal color.

On the box of shoe dye there was a warning to the effect that shoes were not to be worn within twenty-four hours after having been dyed. However, the patient was not so warned.

Summary. Cyanosis came on or was noticed about three hours after he put on the dyed shoes. The shoes were worn from 1 to 8 P. M. The only symptoms complained of were headache, dizziness, and finally nausea and vomiting (once). The only sign was intense cyanosis. Improvement did not begin until the shoes were removed. Oxygen had no effect on the cyanosis. The blood, eight hours after removal of shoes and treatment, showed 15 per cent reduction in red blood cells. Recovery was complete in twenty-four hours.

In The Journal of the A. M. A. of Feb. 8, 1919, Stifel reported a series of seventeen cases of poisoning by shoe dye at Camp Johnston, Jacksonville, Fla. These cases presented signs and symptoms identical with those of my patient. They all recovered with rest in bed and catharsis. The shoe dye was proven to be the cause of the cyanosis by animal experiment and experiment upon human beings. Chemical examination of the dye showed the presence of nitrobenzene or oil of mirbane. Either the poisoning is due to this or some by-product accompanying it, such as tetranitromethane.

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

THE TREND OF MEDICAL PROGRESS

In a review of medical progress for 1925 Gattell and Hitchens state "Probably the two most important and far-reaching events of 1922 upon the future practice of medicine in English speaking countries, are the conditions which led up to the control of the English Government by the Labor Party and the present trend of the law courts in malpractice suits to demand from the general practitioner more and more abstract learning and to award larger and larger damages when present medical knowledge has not been used in the proper treatment of the plaintiff."

If the trend of law courts in malpractice suits is to demand from the general practitioner more and more learning and to award larger and larger damages when present medical knowledge has not been used, what is the remedy for us here in Georgia? Extension medical teaching. Present medical knowledge must be made available for every practitioner in the land. This is the greatest problem and duty which faces or-

ganized medicine today. If organized medicine is to survive it must progress. It can progress best by rendering service—service to all its members. The service most needed today is to make present medical knowledge available. This can be accomplished most efficiently by the Medical Association of Georgia through its County and District Societies. Education is more needed than legislation.

1. Cattell, Henry W. and Hitchens, A. Parker: Medical Progress, 1923, International Clinics, Vol. 1, Thirty-fourth Series, March, 1924, p. 227.

REORGANIZATION OF THE FOURTH DISTRICT SOCIETY

On July 8th, at Warm Springs, the Fourth Congressional District Society was formally reorganized by the election of the following officers: President, Dr. Mercer Blanchard, Columbus; Vice-President, Dr. W. H. Clark, LaGrange; Secretary-Treasurer, Dr. Francis B. Blackmar, Columbus. The Fourth District formerly had a progressive Society, but for unknown reasons no District meeting has been held in several years. This District comprises one of the best agricultural and industrial sections of the State and in it reside many of the ablest members of our profession. We predict for this new Society a well merited success in the hands of its efficient officers.

The Counties which comprise the Fourth District are Carroll, Chattahoochee, Coweta, Harris, Heard, Marion, Meriwether, Muscogee and Talbot. In his annual report to the Council at Augusta, Dr. W. R. McCall, of LaGrange, who served his District and the Association efficiently and unselfishly as Councillor for the past several years, reported 95 paid-up members with 82 non-members. With an aggressive District Society the majority of these eligible non-members should be enrolled before our next annual meeting. We await the result with the keenest interest.

District and County Societies

The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific

papers and discussions which the society shall consider worthy of publication.—Constitution and By-Laws, Chap. VII, Sec. 15.

SIXTH DISTRICT MEDICAL ASSOCIATION

The Sixth District Medical Association held its regular semi-annual meeting at the Hotel Elder, Indian Springs, on June 25th, 1924. The meeting was called to order and presided over by the President, Dr. A. R. Rozar, of Macon. In the absence of the Secretary, Dr. Fred L. Webb, of Macon, was appointed Acting Secretary.

The Association was highly honored by the presence of the President of the Medical Association of Georgia, Dr. J. O. Elrod, of Forsyth. For many years Dr. Elrod was Councillor for this District and the members present gave him an enthusiastic reception and pledged him their loyal support in his greater field of endeavor.

The scientific program consisted of the following:

1. Dr. A. F. White, of Flovilla, read a paper on the "Etiology of Goiter," which was discussed by Drs. O. H. Weaver, of Macon; J. P. Bowdoin, of Atlanta, and in closing by the essayist.

2. Dr. C. H. Thompson, of Macon, read a paper on "Care of the Newborn," which was discussed by Drs. Joseph Yampolsky, of Atlanta; O. H. Weaver, of Macon; A. F. White, of Flovilla; J. O. Elrod, of Forsyth, and in closing by the essayist.

3. Dr. W. L. Bazemore, of Macon, read a paper and exhibited drawing and specimen on "Renal Tuberculosis with Increased Function." This was discussed by Dr. Allen H. Bunce, of Atlanta.

4. Dr. W. A. Newman, of Macon, exhibited many interesting X-ray plates in his talk on "Orthopedic Case Reports," which proved to be of great interest.

5. Dr. James A. Fountain, Macon, read a paper on "Diabetes—Remarks on Treatment," which was discussed by Drs. J. G. Smith, of McDonough; Allen H. Bunce, of

Atlanta; A. F. White, Flovilla, and in closing by the essayist.

6. Dr. Joseph Yampolsky, of Atlanta, read a paper on "Syphilis in Children," which was discussed by Drs. C. R. Thompson, O. H. Weaver, W. L. Bazemore, all of Macon, and Dr. J. P. Bowdoin, of Atlanta, and in closing by the essayist.

7. Dr. Joseph P. Bowdoin gave an interesting and instructive talk on the work being done by Georgia State Board of Health.

The meeting endorsed the efforts of the State Association to secure the passage of a law requiring the proper labeling of "lye" and other caustic alkalis and acids.

Upon the invitation extended by Dr. O. H. Weaver, Macon was selected as the place for the annual meeting.

At the request of a number of members, the President called upon Dr. E. R. Anthony, Sr., of Griffin, for an impromptu talk which was enjoyed by every one present.

The regular officers of the Sixth District Association are:

President—Dr. A. R. Rozar, Macon.

Vice-President—Dr. Cullen Goolsby, Forsyth.

Secretary-Treasurer—Dr. T. I. Hawkins, Griffin.

FIRST DISTRICT MEDICAL SOCIETY

A combined meeting of the Eleventh, Twelfth and First District Medical Societies was held in Savannah July 15, 16 and 17th. There were over forty visiting doctors from these districts in addition to the local men in attendance; also there were quite a few visitors from all over the State. We were fortunate in having the President of the State Association and the State Secretary with us. The complete program was as follows:

July 15, 1924

Invocation—Rev. Norman W. Cox, D. D.,

Pastor First Baptist Church, Savannah, Ga.
Scientific program:

1. Typhoid Fever—Dr. L. F. Lanier, Rocky Ford. Discussion, Drs. H. H. McGee, Chas. Usher, L. F. Lanier in closing.

2. Practical Points in the Removal of Simple Foreign Bodies from the Eyes—Dr. B. H. Minchew, Waycross. Discussion, Drs. J. L. Hiers, L. F. Lanier, B. H. Minchew in closing.

3. Intravenous Therapy in Infections—Dr. W. H. Myers, Savannah. Discussion, Drs. L. F. Lanier, L. L. Whiddon, W. H. Myers in closing.

4. Georgia Doctors in Welfare Work and Legislation—Dr. C. C. Harrold, Macon. Discussion, Drs. R. L. Miller, B. R. Wagnon, B. H. Minchew, J. O. Elrod, J. W. Daniel, Ralston Lattimore, C. C. Harrold in closing.

5. Organization—Dr. J. O. Elrod, Forsyth. Discussion, Drs. C. C. Harrold, J. L. Hiers, A. H. Bunce, F. F. Floyd, B. R. Wagnon and Dr. Elrod in closing.

Afternoon Session

6. Radium in Menorrhagia—Dr. Robt. Drane, Savannah. Discussion, Drs. W. A. Cole, B. H. Wagnon, Cleveland Thompson and Dr. Drane in closing.

7. Initial Report of the Use of Pneumococcic Antigen—Dr. R. L. Miller, Waynesboro. Discussion, Drs. L. F. Lanier and Miller in closing.

8. Clinical Aspects of the Nasal Accessory Sinuses—Dr. J. L. Hiers, Savannah. Discussion, Drs. W. R. Dancy, B. H. Minchew, G. R. White, W. A. Cole, R. L. Miller, Cleveland Thompson, W. W. Evans and Dr. Hiers in closing.

During the afternoon session, the Society was addressed by Dr. B. H. Wagnon, Vice-President of the State Association, whose remarks touched the value of organization and cooperation among doctors.

Dr. Allen H. Bunce, State Secretary, gave a highly entertaining talk on the value of such meetings and incidentally made a plea for more material for the State Journal.

July 16, 1924

9. Who is the Malnourished Child—Dr. J. W. Simmons, Brunswick. Discussion,

Drs. W. A. Norton, L. L. Whiddon, R. L. Miller, J. L. Hiers, Theo. Toepel, and Dr. Simmons in closing.

10. Differential Diagnosis and Management of Thyroid Disease—Dr. Thos. C. Thompson, Vidalia. Discussion, Drs. J. W. Palmer, W. A. Norton, A. H. Bunce, G. R. White, Cleveland Thompson and Dr. Thompson in closing.

11. Resection of the Left Colon for Cancer—Dr. Chas. Usher, Savannah. Discussion, Drs. B. H. Wagnon, Page, and Dr. Usher in closing.

12. Prevalence of Kidney Stones in South Georgia and Florida—Dr. Kenneth McCullough, Waycross. Discussion, Drs. J. W. Simmons, B. H. Minchew, and Dr. McCullough.

13. Pneumonia—Dr. J. W. Palmer, Ailey. Discussion, Drs. A. J. Mooney, B. L. Miller, J. W. Daniel, Harbin, R. Lattimore, J. R. Bean, and Dr. Palmer in closing.

Afternoon Session

14. Syphilis of the Stomach—Dr. W. R. Dancy, Savannah. Discussion, Drs. S. F. Bray, and Dr. Dancy in closing.

15. Allergy and Allied Phenomena—Dr. G. R. White, Savannah. Discussion, Drs. R. V. Harris, J. R. Bean, S. E. Bray, L. L. Whiddon, C. Thompson, and Dr. White in closing.

16. Points in Prostatic Surgery—Dr. J. W. Shearhouse, Savannah. Discussion, Drs. G. R. White, A. J. Mooney, C. Usher, C. Thompson, and Dr. Shearhouse in closing.

17. Gas-Oxygen Anesthesia—Dr. J. Raymond Graves, Savannah. Discussion, Drs. Chas. Usher, R. V. Harris, and Dr. Graves in closing.

18. Clinic—Intestinal Disturbances in Childhood—Dr. A. J. Waring, Savannah.

At the conclusion of the scientific program, the First District Society elected the following officers:

President—Dr. H. H. McGee, Savannah.

Vice-President—Dr. B. B. Jones, Metter.

Secretary-Treasurer—Dr. E. Carson Demond, Savannah.

On Thursday, July 17, the First District Society was host to the visitors at an all day fishing trip to the south end of Warsaw Island. The party, numbering some forty-odd, left Thunderbolt at 10:30 A. M., taking three boats. Dinner was served on the boats and the men enjoyed fishing, bathing, and indoor sports until late afternoon. The trip was a happy culmination to the most successful mid-summer meeting ever held in Savannah.

E. CARSON DEMMOND,
Secretary, First District Medical Society.

FULTON COUNTY MEDICAL SOCIETY

A most interesting meeting of the Fulton County Medical Society was held at the Academy of Medicine, 32 Howard street, June 19th, at 8:00 P. M., Dr. W. E. Person presiding. There were 76 members present.

Report of a case of "Pneumothorax, Lung Collapse with Unusual Heart Sounds," was given by Dr. H. E. White and discussed by Drs. Shanks and Johnson. Dr. Wm. Lake read an interesting article on the "Treatment of Pertussis by X-Ray" and this was discussed by Drs. Thrash, Funkhouser, and Bivings. "Present Urological Methods as Practiced in Europe," was the title of a Clinical Talk given by Dr. S. J. Sinkoe. The paper of the evening was read by Dr. F. K. Boland, "Acute Perforated Duodenal Ulcer," and discussed by Drs. W. S. Goldsmith, Huguley, McAllister, Niles, Donaldson, Campbell, and W. R. Smith.

Under the head of new business, Dr. Person made the announcement that the Constitution and By-Laws was to be finally acted upon at this meeting. The pleasure of the Society was that the Constitution and By-Laws be accepted with the few amendments unchanged, and that a second reading was unnecessary. Dr. Shanks made this a motion, seconded by Dr. Boland, carried. Certificates of membership were presented to the newly elected members. Drs. Olds and Bivings.

A report of the committee appointed to draw up resolutions upon the death of Dr.

J. B. Baird, Sr., was read by Dr. Boland. These resolutions were adopted.

There was no further business. The motion to adjourn was in order.

GRADY E. CLAY,
Secretary, Fulton County Medical Society,
Atlanta, Ga.

FULTON COUNTY MEDICAL SOCIETY

The regular meeting of the Fulton County Medical Society was held at the Academy of Medicine, 32 Howard street, Atlanta, on July 3rd, at 8:00 P. M. The president, Dr. W. E. Person, presided.

There were three interesting case reports given. Dr. W. A. Selman reported a case of appendicitis; Dr. G. W. H. Cheney, a case of "Poliomyelitis (Encephalitic Type)," which was discussed by Dr. W. B. Emery; "Esophageal Pulmonary Fistula," by Dr. J. J. Clark. A clinical talk was given by Dr. M. C. Pruitt, "The Choice of Anesthesia in Surgical Conditions of the Rectum and Anus," being discussed by Drs. Selman, Wagnon, and Person. The paper given by Drs. Freeman and Hoppe was on the "Use of Mercurochrome in the Treatment of Children with Pneumonia," and discussed by Drs. Funkhouser, Thrash, Wells, Hines, Roberts, Dowman, Lokey.

Under the head of new business, Dr. Elkin made the motion that the Secretary write a letter to the Atlanta Journal expressing the appreciation of the Society for past courtesies, and expressing the desire of the Society, that their gratitude be shown by more prompt attention in the future. Carried.

Drs. W. R. Smith and L. S. Patton were elected to membership.

The motion was made that the Library committee be authorized to spend five hundred (\$500.00) dollars on the library. Motion by Dr. Clay, seconded by Dr. Elkin; carried.

Motion to adjourn.

GRADY E. CLAY,
Secretary, Fulton County Medical Society,
Atlanta, Ga.

Regular meetings of the Fulton County

Medical Society are held on the first and third Thursday evenings of each month at 8:00 P. M. at the Academy of Medicine, located at 32 Howard street. All visiting doctors are cordially invited to attend these meetings, and to visit our Library in the same building, which is open to the public from 8:00 A. M. to 5:00 P. M. daily. There will be found posted each evening operations and clinics held throughout the city for the information of the physicians.

GEORGIA STATE BOARD OF MEDICAL EXAMINERS

The Georgia State Board of Medical Examiners held its regular examinations in Atlanta and Augusta, June 4, 5, 6, 1924. The following are lists of questions asked. Read them and see how many you can answer.

Anatomy, by H. F. McDuffie, Atlanta

1. Name the Carpal bones from the Radial to the Ulnar side; giving first the proximal row and then the distal row in the same order. (Either new or old nomenclature will be correct.)
2. Locate and describe the Vermiform Process.
3. Locate and describe the Palatine Tonsils.
4. Give the usual time of eruption of the Deciduous Teeth.
5. Describe the Inguinal Ligament (Poupart's Ligament).
6. Name the Antero-lateral muscles of the abdomen.
7. With what bones does the Humerus articulate?
8. Name and locate three accessory Sinuses of the Face.
9. What bone forms the External Malleolus of the Ankle Joint?
10. Locate and describe briefly the Gall Bladder.

Physiology, by Henry G. Maxey, Maxeys

1. Define absorption, secretion, and excretion, and state through which anatomical structures each occurs with greatest activity.
2. What are the supposed functions of the thyroid gland? What symptoms follow its removal?

3. Describe the movement of the intestines during digestion.

4. Name the organs of elimination and tell the function of each.

5. What are the functions of bile. Give its constituents.

6. Describe the normal heart sounds and factors producing each.

7. What is the normal arterial blood pressure?

8. Describe a Peyer's patch and tell where it is found.

9. Describe briefly the functions of the pneumogastric nerve.

10. Discuss the relation of the ovaries to menstruation.

Chemistry, by A. F. White, Flovilla

1. What glands are involved in the secretion of saliva?
2. Define the composition of the blood.
3. Make qualitative test for the presence of chlorides, sulphates and phosphates in the urine.
4. What are proteins and their functions in the human body?
5. Describe the action of pancreatic juice on carbohydrates.
6. By what process does bile enter the intestinal tract and what is its function in digestion?
7. In what portion of the human body do we find the greatest amount of absorption and why?
8. In what portion of the human body do we find the greatest amount of absorption?
9. Give the chemical formula for mercuric and mercurous chloride.
10. What should be the treatment in acute arsenical poisoning?

Pathology, by W. C. Williams, Jr., Cochran

1. Name the diseases in which you get the following pathological findings: The papule is seen to be a focus of coagulation necrosis in the rete mucosa, surrounded by an area of active inflammation. The vesicle is made up of numerous recticulæ and spaces which contain serum, leukocytes and fibrin. When the pustule involves the true skin a permanent scar results.

2. Describe an Aneurism.
3. Give the Pathology of the heart during Mitral Incompetency.
4. Give the Pathology of Infantile Scurvy.
5. Give the Pathology of Lobar Pneumonia during the stage of engorgement.
6. What is a Thrombus?
7. Describe the spinal fluid of Cerebrospinal Meningitis.
8. Give the Pathology of Ileo-Colitis.
9. Give the one Pathological finding by which you could make a positive diagnosis of Amaurotic Family Idiocy.
10. What is an Embolus?

**Materia Medica and Therapeutics (Regular),
by O. B. Walker, Bowman**

1. Write prescription for diarrhoea in adult, and outline general scheme of treatment.
2. Give approximately the safest percentage of ether and air, also of chloroform and air, to produce prolonged anesthesia.
3. Define (a) cardiac stimulants, (b) cardiac tonic, (c) cardiac sedative. Give example and dose of each.
4. What do you know of the uses and effects of insulin in the treatment of diabetes?
5. Opium: (a) give its physiological action, (b) toxic effect; name its principal alkaloids and give doses.
6. Name acids in general use for internal administration, the doses and strength in which they are used.
7. How and when would you use quinine, and when is its use contraindicated?
8. Name five remedies used hypodermically and doses of each.
9. Describe the poisoning from bi-chloride of mercury, and give antidotes and treatment.
10. Define vaccine and serum; name two of each and describe method of administration.

**Materia Medica and Therapeutics (Eclectic),
by O. B. Walker, Bowman**

1. Write a prescription containing not less than two drugs for an adult suffering

with acute dysentery, and give the physiological action of each drug.

2. In what way does chloroform get into the circulation, and how does it produce cardiac depression?

3. Briefly describe the heart therapy of (a) cactus, (b) digitalis, (c) crataegus, (d) convallaria.

4. Compare therapy of elaterium and colocynthis.

5. How would you treat a case of spasmodic croup in a child? Write a prescription.

6. Give the specific indications for (a) apocymum, (b) bryonia, (c) macrotys, (d) pulsatilla, (e) veratrum, (f) rhus tox.

7. How would you recognize the full physiological effects of (a) aconite, (b) belladonna, (c) bryonia, (d) nux vomica.

8. Tell why you would select each of the following for catharsis: (a) Epsom Salts, (b) elaterium, (c) cascara sagrada.

9. What is diphtheria antitoxin, how obtained, and limit dose for a child two years old?

10. Describe the process of immunization against typhoid fever.

Materia Medica and Therapeutics (Homeopathic), by O. B. Walker, Bowman

1. Describe a case of colitis in which mercurious corrosivus is the chief remedy.
2. Give indications for jaborandi in acute nephritis.
3. Why does trituration increase the action and effectiveness of drugs?
4. Give indications for the use of nux vomica, belladonna and arsenicum in the treatment of chronic constipation.
5. What is the Homeopathic indications for the use of (a) apis mellifica, (b) barvta carb, (c) chamomilla, (d) sepia, (e) cina, (f) ignatia.
6. There are three definite causes for dropsical conditions. Give two remedies for each cause, with reasons for selecting same.
7. Give characteristic symptoms indicating rhus tox, carbo veg, and baptisia in the treatment of typhoid fever.
8. What is the physiological effect of pit-

uitrin? Give indications for its use and dosage.

9. How would you treat case of corrosive sublimate poisoning?

10. What do you understand by drug affinity for special organs and tissues? Give examples.

Diagnosis, by C. M. Paine, Atlanta

1. Differentiate Pyelitis from Cystitis.

2. Differentiate Sciatica from Disease of the Hip-joint.

3. Differentiate Ovarian Tumor from Ascites.

4. Differentiate Renal Colic from Intestinal Colic.

5. Diagnosis of Gastric Ulcer.

6. Diagnosis of Mitral Stenosis.

7. Diagnosis of Vesicular Hypertrophic Emphysema.

8. Diagnosis of Chlorosis.

9. Diagnosis of Strychnine Poisoning.

10. Diagnosis of Herpes Zoster.

Practice and Hygiene, by J. W. Palmer, Ailey

1. Give standard treatment for Malarial Fever.

2. How would you diagnose a case of Pulmonary Tuberculosis in its early state?

3. Give treatment for Intestinal Hemorrhage in Typhoid Fever.

4. Give treatment for Lobar Pneumonia.

5. Give the cause and treatment of Tetany.

6. Give treatment of Iritis.

7. Give a prescription for Scabies and one for Syphilis.

8. What is the incubation period of Parotitis?

9. Give treatment for Acute Otitis Media.

10. What is Dementia Precox?

Gynecology, by N. Peterson, Tifton

1. Describe the normal position of the uterus.

2. Name and describe the different degrees of retroversion.

3. Give the symptoms of retroversion due to relaxation.

4. Describe the orthopedic and surgical treatment of retroversion due to relaxation.

5. Describe in detail the operation for the immediate and secondary repair of a complete laceration of the perineum.

6. What are the causes of hemorrhages from the non-pregnant uterus, and give treatment.

7. What diseases are most likely to be mistaken for cancer of the uterus?

8. Describe in detail an abdominal hysterectomy.

9. Give the blood and nerve supply of the uterus and ovaries.

10. What are some of the common causes of too frequent urination in women?

Surgery, by C. T. Nolan, Marietta

1. Name and describe the different varieties of fracture.

2. Mention the causes of delay union and give the treatment.

3. Give symptoms of acute appendicitis.

4. Name the principal operation for stone in the bladder.

5. Describe an operation for removal of hemorrhoids.

6. What are the indications for removal of the tonsils?

7. Mention the inflammatory diseases of bone.

8. Give the etiology and treatment of osteomyelitis. What part of the bone does it usually affect?

9. With what conditions may aneurysm be confounded?

10. What are the most approved operative procedures in the treatment of varicose veins of the lower extremities?

NEWS ITEMS

Dr. Lewis M. Gaines, of Atlanta, spent two weeks of July in North Carolina.

Dr. George R. White has returned after an absence of several months to resume his practice in Savannah.

Dr. LeRoy W. Childs, of Atlanta, now has associated with him Dr. Julian G. Riley. Their practice will be limited to surgery, gynecology and obstetrics.

The many friends of Dr. F. J. Odom, of Columbus, are welcoming her back home from Birmingham, Alabama.

Dr. Maury M. Stapler, of Macon, Ga., has opened offices in Atlanta on Thursdays at the Biltmore Hotel in the forenoon for consultation and examination. At the Wesley Memorial in the afternoon for operation and treatment. Practice limited to diseases of the ear and throat.

Georgia Pediatric Society Elects Officers

The Georgia Pediatric Society held its annual meeting during the session of the Medical Association of Georgia in Augusta.

The following officers were elected: Dr. Theodore Toepel, Atlanta, president; Dr. Rob't L. Miller, Waynesboro, vice-president; Dr. W. N. Adkins, Atlanta, secretary and treasurer.

The officers want it understood that all members of the Medical Association of Georgia interested in the welfare and in the diseases of children are eligible to membership.

COMMUNICATIONS

Dr. Allen H. Bunce, 65 Forrest Ave., Atlanta, Ga.

Dear Doctor: By direction of the Surgeon General of the U. S. Public Health Service, the occurrence of endemic typhus—Brill's Disease—in the South is being studied.

The progress of this study at present depends upon securing animal inoculations from patients suffering from this disease. Your assistance is asked in this study.

If a suitable case occurs in your practice, please get in touch with Mr. Martin, Acting Director of the State Laboratory, and arrange for him to obtain a small amount of blood for experimental purposes.

This courtesy will be much appreciated.

Yours truly,

GRADY E. CLAY,
Secretary Fulton County Medical Society.

My Dear Dr. Bunce: We certainly appreciate your cooperation in helping us to complete our files of the Journal of the Medical Association of Georgia, by publishing an announcement of our wants in the Journal.

Would it be possible to include in the notice the statement that this library is anxious to secure any volumes of the transactions of the Medical Association of Georgia, particularly the ones from 1849 to 1881, and any volumes of the Atlanta Medical & Surgical Journal, the Southern Medical Record, and the Atlanta Journal-Record of Medicine? This local material will prove very valuable to us in the upbuilding of our library.

Thanking you for your kind assistance, I remain

Very truly yours,

M. MYRTLE TYE,

Librarian, The A. W. Calhoun Library, Emory University, Emory University, Ga.

ATTENTION, FORMER ILLINOIS DOCTORS

Will any and all doctors, former residents of Illinois, or descendants of pioneer physicians of the "Illinois country," communicate at once with the Committee on Medical History, Illinois State Medical Society, No. 6244 North Campbell avenue, Chicago, Illinois?

Under the sponsorship of the Illinois State Medical Society there is in preparation "A History of Medical Practice in the State of Illinois" that must go to the printer at an early date. In order that this volume may be accurate and complete, all possible assistance is asked from every source, as to personal data and experiences, including diaries, photographs and similar documentary mementoes of pioneer Illinois doctors and of progressive phases of medical practice, as well as of achievements in fields other than those of medical science. Prompt return in good condition is promised for

anything loaned the committee, the personnel of which is:

O. B. Will, M. D., Peoria, Ill.
 C. B. Johnson, M. D., Champaign, Ill.
 Carl E. Black, M. D., Jacksonville, Ill.
 George A. Dicus, M. D., Streator, Ill.
 James H. Hutton, M. D., Chicago, Ill.
 Chas. J. Whalen, M. D., Chicago, Ill., chairman.

MARRIAGES

Dr. William Milas Dunn, of Atlanta, and Miss Clara Elizabeth Whips, of Chattanooga, Tennessee, were married July 12, 1924. Dr. and Mrs. Dunn are at home at the Georgian Terrace, Atlanta.

THE HUMAN TESTIS

Its Gross Anatomy, Histology, Physiology, Pathology, With Particular Reference to Its Endocrinology, Aberrations of Functions and Correlation to Other Endocrines, as well as the Treatment of Diseases of the Testes and Studies in Testicular Transplantation and the Effects of the Testicular Secretions on the Organism, by Max Thorek, M. M., Surgeon-in-Chief, American Hospital; Consulting Surgeon, Cook County Hospital, Chicago, Ill., President International Congress of Comparative Pathology, 1924.

Never has there been greater interest or livelier discussions of the various phases of the human testes, especially the function, the endocrinology and the diseases of the testes. Many of the questions are fanciful, unsettled and controverted. We are, therefore, greatly indebted to Thorek for a monograph on this subject in which is embraced and elucidated the important questions pertaining to anatomy, functions, pathology, dystrophias, endocrinology, and other important subjects concerning the human testes as well as animal experimentation. Thorek has himself done much original work and describes in detail his technic for transplanting testes into man. He gives apparently good reasons for the site he selects; namely, retrorenal space. Such a location for the transplant seems favorable for func-

tion and at the same time is well out of reach of the patient, who might otherwise be constantly concerned about his condition. Much remains yet to be done to make clear the inter-relationship in the functions of the testes, the adrenal, the pituitary and the thyroid glands and such work as that which Thorek has done will help us to reach our goal.—Ballenger.

PROCEEDINGS OF THE 75TH ANNUAL MEETING OF THE MEDICAL ASSOCIATION OF GEORGIA

Augusta, May 7, 8, 9, 1924

Fourth Meeting House of Delegates
 May 9th.

(Continued from July issue, page 329)

DR. CLARK: In order to get this before the House I move the adoption of the report. (Seconded.)

THE PRESIDENT: It has been moved and seconded that the report of the Secretary for the Council be adopted. Is there any discussion of this report to the Council?

DR. PALMER: One question about the members of the Medical Defense Committee. Are they rendering this service free, or are we to pay them something? I feel that if they are not paid it is an injustice.

DR. THRASH: As a member of that committee I feel that we are not doing much. The Secretary does all the routine work and the local committee takes care of most of the rest. We just act in an advisory capacity and I think we would all spurn an offer of pay. I do, however, think those who come from a distance might have their railway expenses paid, but I know Dr. Clark has never offered a bill.

DR. CLARK: So long as you wish me to serve you I shall be glad to do so. If at some time in the future I cannot get my ticket, then I might ask you to do this, but let me serve you as I can.

DR. WAGNON: I regret like thunder to have to deal with this nurses' proposition. We feel that we are just in the hands of the Philistines, but what can we do? We can't force nurses in Augusta to go over to Millen

or Blackstrap or some other place. If we call up the nurses' register they will say, "Yes, we have nurses on the register. What kind of a case is it? Where do they live? Do they keep an automobile?" And there you are. If you do not have things to suit them they will not come but I do not see how we can help ourselves by passing a resolution when it comes to forcing women to do anything. (Laughter.)

DR. THOMPSON: The object of the resolution was to find out if there is a trained nurse problem and to make recommendations.

THE PRESIDENT: We will do away with formalities for a moment and the President will address you, because I happen to be in touch with a man on such a committee in New York City. He wrote me soon after I was elected President and I sent his communication to Dr. Thompson, because he had mentioned this matter in our district society. I wrote him just what I thought and a few days ago he sent me his data on the condition in the United States and Canada, and then his personal views. The objection of the New York State Association was this, that the nurses by way of their political strength have gone to the Legislature and put over this four-year training. I believe it is three in Georgia, before they can put "R. N." on their badge, then they have you. They have a closed union in which they can charge what they please. The solution as offered by New York is that this law shall be amended so that we shall have in the state just what we had during the war. Then we took young women and put them in the hospitals and called them practical nurse. They did not get as much pay as the registered nurses, but nevertheless the majority of women with good common sense can nurse the average case as well as an R. N. There may be a difference in the surgical technic in the operating room, but at the bedside the woman who knows how to take temperature and pulse and how to bathe and feed a patient is just about as good. Why they should charge \$49.00 a week I do not know.

That solution as offered by New York, that a law be enacted whereby we can have two classes, the practical nurse who can go into the hospital and stay for two years as well as the R. N. My point is that any woman with a grain of sense can learn all she is going to learn in two years. I am going to send this communication to the Secretary and he can put it in the Journal or do whatever he sees fit.

DR. THOMPSON: If this resolution goes through you will each one be asked for your opinion.

DR. SELMAN: I have been on a committee to investigate this in Atlanta and we found that it has been taken up by the hospitals, where there is a uniform class of study laid out for the nurses. You cannot have some nurses going two years and getting a certificate and some going three and getting a diploma. We have on the register nurses both white and colored. They have a place and register and if you call for such a nurse you can get one. If you call over the R. N. directory you get a graduate nurse. When you meet with a committee of trained nurses they might refer you to this organization all over the country, well organized, where they are complying with their training schools just as the medical colleges are complying with their requirements, and they claim that they have to give their nurses this three year course. You can have practical nurses but these are largely composed of women who have started in to get a nurses' education but for some reason have been dropped from the roll. They may have had one month or twelve months training, but they are all practical nurses and you are lucky if you get one who can do more than take a temperature.

DR. PALMER: I wish to thank Dr. Thompson for bringing this up. I think it very important. You fellows in the cities who have plenty of money and have patients who have plenty of money do not feel this like we do out in the country and in small towns. We feel that our patients cannot support them. The nurse has to be paid and the doctor has to wait in a great many in-

stances. I think it is a very important matter and one to which we should give some time and consideration. It looks to me as if the medical profession was trying to make it necessary for chiropractic and other cults to require the same training that they take before they are allowed to practice, and then to allow these practical nurses to come in is not right, but I feel this is not a fair comparison. We have first, second and third class school teachers; the nurses are under the instruction of the doctor and we can get along with a second or third class nurse if we cannot afford to pay for a first class. I notice it is impossible for some nurses to get in for training without certain qualifications and the educational part has a lot to do with it. If a woman has to have a good education that will be sufficient to get a first grade license before she can study nursing, she is not so apt to study it. I think it time to have a committee, or a commission, or somebody study this out and report back to us. I consider it one of the most important matters that has been brought up.

DR. SIMMONS: I think we shall have to go about it in a more diplomatic way, suggesting that they improve their standard of ethics in the hospital. There is a policy among all the hospital superintendents not to allow a special nurse in the hospital who is not a graduate and a registered nurse, unless a graduate and registered nurse is not obtainable. This seems to be a matter of ethics and I am afraid that unless we protect ourselves with law we will get mixed up with the people upon whom we depend for the care of our sick. I agree with the spirit of the affair, but if we do not go about it in a diplomatic way we will not get anywhere. I think we should appeal to the ethics of the situation rather than to create a sore feeling.

DR. THOMPSON: It was the sense of the committee that this matter be investigated through the profession, the nurses, and from every standpoint.

THE PRESIDENT: Are you ready for

the question, gentlemen? All in favor of the adoption of the report of the Council signify by the usual sign.

Dr. Clark's motion was put to a vote and unanimously carried.

THE PRESIDENT: Is there any further business before the House?

DR. THRASH: I move that a vote of thanks to the Richmond County Medical Society, the daily press, and all those who have contributed to the success of our meeting.

DR. BOLAND: I wish to amend that this resolution be given to the daily press.

Seconded and carried.

THE PRESIDENT: With your permission I will appoint the Business Manager of Glynn County, Dr. Simmons, to draft this resolution and submit it to the press. Dr. Bunce, have you anything to report for the Council?

DR. BUNCE: The Council passed a resolution that the Committee on Hospitals plus the President and Secretary shall investigate the trained nurse situation.

The Council approved of an appropriation of \$3,500.00 to the Committee on Medical Defense, and ask for authority to act in the matter of appropriations to the other committees.

THE PRESIDENT: You have heard the minutes of the Council meeting, what is your pleasure?

DR. PALMER: I move their adoption. Seconded and carried.

DR. PALMER: I move that we extend a rising vote of thanks, appreciation and recognition of the services of our retiring President for his untiring efforts throughout the year to help the country, and for the able manner in which he has presided during the meeting.

Seconded and carried.

DR. THRASH: I do not think that we should overlook our Secretary-Treasurer, Dr. Allen H. Bunce, and our official stenogra-

pher, Mrs. Irene Snyder, and that we should extend a rising vote of thanks to them for their faithful, efficient and courteous service during the session.

Seconded and carried.

DR. SIMMONS: I have prepared the following resolution:

WHEREAS, Through the hearty hospitality shown by the Richmond County Medical Society, the interest and cooperation of many citizens of Augusta, and the uniform courtesy and attention of the press, this 75th or Diamond Jubilee Anniversary session of the Medical Association of Georgia has been made most interesting and enjoyable for the visiting members, therefore be it unanimously

RESOLVED, By the Medical Association of Georgia, in regular session assembled, that a rising vote of thanks be tendered the officers and members of the Richmond County Medical Society, the press of the city and the many citizens for their hospitality and attention, for the excellent entertainment provided, the arrangements made for facilitating the work of the sessions, the publicity furnished and the cooperation manifested. Be it further

RESOLVED, That a copy of these resolutions be furnished the Richmond County Medical Society and the newspapers of Augusta.

THE PRESIDENT: In retiring, I wish to say that this has been a pleasant year to me. I have met some very good fellows and have enjoyed being your President. The only thing I wish to ask is that in the future you do not forget the old ex-presidents—we will be there just the same. (Applause.)

On motion, the House of Delegates adjourned at 9:40 A. M. sine die.

ALLEN H. BUNCE, M. D.,
Secretary-Treasurer.

JOINT REPORT OF DELEGATES TO

A. M. A. FOR 1923

J. W. Palmer, M. D., Ailey, Ga., and J. N.

Brawner, M. D., Atlanta, Ga.

Presented by Dr. J. W. Palmer

Before reporting the business part of the House of Delegates I will say a few words about the A. M. A. and its Journal.

The A. M. A. is made up of fifty-four independent Medical Societies or Associations with a membership totaling nearly 90,000 physicians out of 150,000 in the United States. The assets of the A. M. A. is over one and a half million dollars, besides the net income of the Journal and dues for 1922, which was \$262,000. The gross income of the Journal and dues were \$1,152,000. The expense for operating same was \$890,000. You see from this that the A. M. A. and its Journal is a big enterprise. The dues should have been reduced from \$6.00 to \$4.00 instead of \$6.00 to \$5.00. There are only around 50,000 members out of the 90,000 members of the A. M. A. that are Fellows. A great many members of the A. M. A. think they are Fellows when they are not. To become a Fellow one must make application for Fellowship when he sends in his dues and subscription to the A. M. A. and the Journal. Your annual membership card states whether you are a Fellow or a member. This you should look after because you can't be a Delegate or Officer in the A. M. A. if you are not a Fellow. Our State Association has 612 Fellows and 467 Members in the A. M. A.

The report from the Medical Association of Georgia at the San Francisco Session showed 105 organized Counties out of 154, and 1,575 who are Members of the Medical Association of Georgia out of the 3,274 Physicians in the State. It is very important that we keep the membership of our Association just as high as possible; if for no other reason we are forced to keep our membership high in order that there will be no reduction of our representation in House of Delegates; because there can be only 150 Delegates in all. To illustrate, will say if Flor-

ida who has one delegate should increase her membership to a certain number and Georgia who has two delegates should decrease her membership to certain number, Georgia then would have only one delegate and Florida would have two delegates. The By-Laws of the American Medical Association provide that there shall be a reapportionment of delegates among the constituent state medical associations every three years. The last apportionment was made at the Boston session in 1921. A reapportionment is to be made at the coming annual Chicago meeting in 1924. This will be effected on the basis of the membership of each constituent Association on April 1, 1924, and will determine the number of delegates to represent each state association each year until 1927.

This session of the A. M. A. was not as largely attended as the last session in St. Louis, due of course to the fact that the distance was too great for most of the members to attend; however, the registration showed about 1,200 more than at the San Francisco meeting prior to this one. There were only seven physicians registered from Georgia. It is impossible to incorporate in this report all the things that transpired in the House of Delegates, and to state the recommendations made to the House and the resolutions that were voted down or passed. I will mention only a few of the most important ones:

There were more resolutions offered and more discussions provoked and time consumed trying to get through resolutions asking an amendment to the Volstead Act allowing physicians more privilege in prescribing whiskey or curbing their rights in prescribing the same, than most all other resolutions combined. Out of all this the following resolution was passed:

WHEREAS, The honor and integrity of the medical profession is being reflected on by the unnecessary, unprofessional and unlawful prescribing of alcoholic liquors by some unscrupulous physicians;

RESOLVED, That in the judgment of the House of Delegates of the American Medical

Association, in session assembled, every state and county medical association should use their best endeavor to discipline physicians who either negligently or wilfully prescribe alcoholic liquors otherwise than in accordance with the law, and to purge the medical profession of physicians who wilfully, under the cloak of their profession, prescribe alcoholic liquors for other than medicinal purposes; and

RESOLVED, further, That the Secretary of this Association forward a copy of this resolution to every state and county medical association affiliated with the American Medical Association.

Other resolutions passed were as follows:

WHEREAS, There is an increasing hazard to infant and child life from the accidental aspiration of zinc stearate which is used as a baby dusting powder:

The Section on Diseases of Children, by unanimous vote, does hereby recommend to the House of Delegates of the American Medical Association, that such action shall be taken in cooperation with the manufacturers of said dusting powers so that caution labels shall be placed on all containers of said powders, and that such changes shall be made in the form of said containers so as to prevent the frequently occurring illnesses and fatalities in instances where such powders are used.

WHEREAS, For the first time in the history of organized medicine in New York State, and so far as can be learned, in the entire United States, a governor has summoned representatives of the organized medical profession in conference to help solve important questions affecting public health, medical education and the practice of medicine; therefore, be it

RESOLVED, That the House of Delegates approve the efforts of the Governor of New York State in seeking through the organized medical profession expert opinion and advice on the topics of public health, medical education and the regulation of the practice of medicine; and be it further

RESOLVED, That similar cooperation relationships should be encouraged throughout the several states of the Union.

RESOLVED, That the Council on Pharmacy and Chemistry of the American Medical Association be instructed to employ a trained publicity man, preferably a writer with an established reputation, whose duty it shall be to get into the lay press, daily papers, rural publications, magazines, etc., articles covering fully and accurately all of the activities of organized medicine.

The following changes were made in the By-Laws:

1. Your committee approves the proposed amendment to Section 2, Article 1, Chapter II, page 6, of the principles of Medical Ethics, so that the heading should read "Medical Societies" rather than "Duty of Medical Societies."

2. Your committee approves the amendment to Section 1, Article 3, Chapter II, page 2, so that the heading should read "consultations should be encouraged."

3. Your committee approves the substitution of the word "should" for the word "may" in Section 5, Article 3, Chapter II, page 13, so that the first three lines of this section should read: "after the physicians called in consultation have completed their investigations of the case they should meet by themselves."

4. Your committee approves that the proposed sentence be added to Section 1, Article 4, Chapter II, page 15: "In embarrassing situations or whenever there may seem to be a possibility of misunderstanding with a colleague, the physician should always seek a personal interview with his fellow."

In answer to the request of the Bureau of Legal Medicine and Legislation of the A. M. A. to the Veterans Bureau relative to the present training of the 250 ex-service men as Chiropractors in Vocational training the following communication by wire was received from Director Hines and read before the House of Delegates:

"Inform Board of Trustees American Medical Association, that Veterans Bureau

stands for only best in medicine and adequate training of all those engaged in treatment of sick. It is necessary to stand by existing contracts which were previously made with certain chiropractic schools but only those men will be entered who have educational qualifications which would permit them to enter only Class A medical colleges. No additional men have been entered in training and no more will be entered when men now in training, have completed their courses and present contracts have expired. Canada's delegate stated that Canada eliminated all cults by requiring four-year college courses before reading medicine, of any school of thought."

The A. M. A. since our San Francisco meeting is sending their Bulletin to every one of their members. This Bulletin fills a long needed place. It serves as a medium for the interchange of opinion on organization and allied subjects and for the discussion of matters pertaining to medical economics or other matters not strictly scientific in character.

Hygeia is a lay public magazine that has been issued only a short time by the A. M. A. which was very much in need as it is a connecting link between the public and the profession. It is the best publication to be had to educate the public and inform them on nostrum evils, fakirs and quackery. Every doctor in Georgia ought to encourage his patients to subscribe for and read this Journal. A copy of it should be on the table in the waiting room of every doctor.

In addition to these Journals the A. M. A. issues five more standard Medical Journals besides its official organ, the Journal of the A. M. A.

The Bureau of Legal Medicine and Legislation, established within the last year, has demonstrated its value and importance. The record of its accomplished Executive Secretary, Dr. W. C. Woodard, is one of which we may well be proud. His quiet and unpublished assistance in time of legal need has been of real value. He has al-

ready been of much value to our own State Boards of Health and Medical Examiners and Medical Defence Department. This Bureau deserves our fullest confidence and support. It is the greatest step we have made in some time toward medical progress. It is a go-between the medical profession and the law-making bodies of the country. Dr. Woodard in his report before the House of Delegates stated that he was waging a fight in cooperation with the constituent societies that he hoped in the near future would result in relieving the profession of the taxes under the Harrison Narcotic Law and allow us deduction from our income taxes of our expenses from attending medical societies and taking post-graduate courses. That he hoped he would have all laws and division of laws of interest to the physician submitted to this Bureau for approval or criticism before enacted or adopted. Because all other professions, callings, occupations, organizations or business enterprises, except the physicians are consulted, before the passing of any law affecting them. That it is a matter of justice and right and not a matter of courtesy for the physician to have the privilege of approval or disapproval of any legislation affecting him before it is enacted with authority to regulate the practice of or adopted by legislators or those vested medicine.

PROCEEDINGS OF THE ROUND TABLE CONFERENCE OF THE SECRETARIES OF DISTRICT AND COUNTY SOCIETIES

Wednesday Evening, May 7, 1924

The meeting was called to order at 7:00 o'clock by Dr. Allen H. Bunce, the Secretary-Treasurer.

DR. BUNCE: Two years ago we started to have conferences of the District and County Secretaries because the Secretaries have most to do with the Societies. Although tonight we are unfortunate in our choice of meeting place, this being the only one we could get, we are going to ask each of you to tell us something about your expe-

rience, and what you think about getting a full membership in your society. We will ask first our President, then our two ex-Presidents, and then each member present to give his views.

DR. J. W. DANIEL, Savannah, President: I have always looked upon the Secretary of a local society as a very important spoke in the wheel, and my observation of our own society, my County Society, has been that in any year when we were unfortunate enough to get an indifferent secretary we had a rather indifferent year. Of course, it devolves upon the secretary in many societies to map out the program, although they may have a program committee, and it is his duty to send out notices of the meetings in ample time to secure good attendance. It is his duty to send out statements for dues and to see that his society makes 100 per cent with the State Association, and if the Secretary is not right on the job they get very indifferent results.

Dr. Bunce brought out an important question as to how best to get a large membership in your society. There are many angles in which you can look at that, but my observation of men is that we have two weaknesses, first money, and, second, eating. (Laughter.) If you can show the members of the medical profession how by combining and uniting they can better themselves, eventually they will go into an organization and be good members. Then if you can get them into the organization you must have something to induce them to attend other than to listen to papers. Almost every man will go if there is a free lunch. (Laughter.) That is a peculiar statement, but true. How many of the civic clubs would progress if it were not for the little lunches, the fifty-cent or seventy-five cent luncheon? Although he might get a much better one at home, he will go down and pay for that stuff they serve at luncheon and think he is having a good time. A good many years ago, before we put on city airs, we used to meet at the homes of the dif-

ferent members. Of course, each man tried to rival his predecessor as to his method of entertaining and we had some very elaborate "spreads." The one who had the best feed had the best attendance. The members soon found out the man who would feed them the best and they all went to that doctor's house. There was no trouble whatever about having a big meeting. Now, we have to give a little refreshment after the meeting in order to get a good attendance. I do not know whether they do this in Atlanta or not, but you will find that you will get the men back into the fold if you give them a bottle of near beer and a sandwich.

In South Georgia they have a very excellent way of doing things and they map out an annual program. The only way to carry on the scientific part of an organization successfully is to have a committee for that purpose and have that committee map out a definite program to be carried on for the entire twelve months. If you attempt after each meeting to formulate a plan and line of discussion for the next meeting you will only have in most counties two weeks in which to prepare the paper and have the essayist prepare his address. Most of them put it off until the last minute and then it is not prepared, but if there is an annual program most men will prepare their addresses and you will get results.

The biggest question in most societies, I find, is the matter of dues. Of course, in the larger cities the members have to pay more dues because there is more expense. They have a larger rental and many other expenses. In our county we own our building, but have to pay our secretary, and up to this year we charged \$25.00 annual fees. That paid for the building. The building having been paid for, we are running on a \$15.00 basis and probably will have a larger membership than we had last year. Of course, the membership is dependent on the surrounding country and the conditions there. You cannot formulate that by any standard.

My suggestion to the secretaries would be, for it falls upon their shoulders, to prepare the program for the meetings well in advance, that they adopt the method of an annual program and map it out at the beginning of the year for their speakers, and then carry it out. At the same time, they should penalize the man who does not carry out his engagement. I think that is the method, if a man fails to produce his paper, unless he is sick or has some good excuse, he should not be permitted to appear on the program for two years. Our state organization has finally had to adopt that plan and it would not be a bad thing for some of the district societies to adopt it. As a matter of fact, I think some of them have already adopted it. I hate to say it, but some men will go down on a program for anything. They do this repeatedly but never produce the goods. Whether they do this with the idea of getting their name before the people or what their intention is I cannot pretend to say, but if there is a penalty connected with it we will not have it to contend with.

I think there is practically nothing more that I can suggest to the secretaries. I thank you for the privilege of being with you and for the very kind cooperation you have given me in the past year. It has been a great pleasure to have served you as your President. I have met more medical men this year than I ever knew before and have found this to be the case, that the better I know the medical men the better I like them. With some people the better you know them the more you dislike them, but my experience with the medical men is that they are very good chaps individually, once you know them. There are many shortcomings in our profession, and especially is this true in the two extremes of medical life, the small community on one hand and the large on the other. They are both promoters of dissension. With two men in a community we find two very strong rivals that, through human weakness, will not agree. In a large community we will

find the same and we will find this true everywhere. I do not know how we can get around this. It started in the beginning of time, when Cain slew Abel, I believe. It started back there and has been going on ever since. Whether that was true or not, I do not know, but it is very applicable. If you can convince these gentlemen that they are standing in their own light, and that if they will get acquainted with the fellow that they think is the meanest man in the world he may prove to be the best man in the world, you can accomplish much. I am guilty of that myself. Take my friend Bunce here—I used to think there was nobody on earth from Atlanta but what would take anything that was not chained or tied, and that they were the worst gang in Georgia. I am here to tell you that after a year's experience with the Atlanta fellows I have found that they are just as nice a bunch as you want to meet. I did not know them, that was the trouble. I lived in a small town on a back street and these fellows did things and put it over, they got everything they could and carried it to Atlanta. I was in a community where we sat down and did nothing and thought the Lord provided for us, and we were jealous of Atlanta. That is Georgia all over. The fellow who thinks the other one is a mean chap is usually sitting down and the other fellow is putting it over. Take my advice and when your competitor gets a patient don't censure your competitor, but look at yourself, analyze yourself, and see why that fellow got your case or the one you should have had. You will find that you are short of something and that the other man could produce something that you could not and therefore the patient took him. Study hard and brush up and the society will be better for it and the men composing the society will be better for it. I thank you all very much.

DR. BUNCE: I am sure we all appreciate Dr. Daniel's remarks very much indeed. The only officer of the Secretaries' Conference who is present tonight is Dr. A. J.

Green, Union City, and he asked me to preside. I think a good way to do would be to go right around the table and let each man give his name and his county society as he arises. Dr. Allen is next.

DR. HENRY D. ALLEN, JR., Baldwin County: We have a very good society, considering the size of the community. We have sixteen doctors connected with one institution and they joined up as a whole, 100 per cent, and we also have eight doctors from the community at large in the society. We can always get a quorum for our meetings because we meet over at the state sanitarium and all we have to do is to break up a six-handed game of "set-back." The President and Secretary being on hand, we can have a quorum and we usually have papers and a free discussion of cases. Milledgeville, as perhaps most of you know, abounds in clinical cases of all descriptions and that is the most interesting part of our program. We do have some indifferent practitioners, most every one of whom has a farm in addition to the practice he does and it is hard for us to get these men in. There are only four of those, however, and at present two have just come in and we have made no effort to get them into the society.

I think that is all I have to say about Baldwin County.

DR. J. H. HAMMOND, Walker County: I feel very poorly qualified to discuss any of the means of securing a regular meeting of the county society. There was a time when my County Society had good meetings and interesting meetings, but in recent years they have not been quite so good. However, we are pretty thoroughly organized and have been for a number of years. I think I stated at the first meeting of secretaries that I was the oldest secretary present. I did not mean by that the oldest man, but the oldest SECRETARY. I have been county secretary for about forty years (applause). Since the reorganization of the American Medical Association my county has had a county society continuously and it has included almost every doctor in the county.

Occasionally we lose one. We have two or three out now, but one is not a suitable man. I do not regard it a hard thing at all to get membership in a county society. The only thing is work. Of course, there are some ways to work that are better than other ways. A good many years a man refused to join because he said it was not worth enough to him. We have discussed organization in every way, what it is worth and all that, and I think we understand pretty well what that means. We do not have much trouble in keeping up the organization and collecting the dues.

I regard the secretary as the most important member of the county society. I frequently say it matters little who shall be president just so that we elect a good secretary. It does not matter whether he is a good doctor or not, but he must be a good secretary. I think that is the all-important thing.

DR. A. J. GREEN, Campbell County: We have a small county. There are only nine doctors in the county and seven are members of the County Society and all are very enthusiastic members. We do not have much trouble in getting the membership out at each meeting, due largely, I think, to the feeling they have of being indebted to the Medical Association of Georgia through the legal side of it. They help us out so well in our lawsuits by sending the witnesses, and the character of the witnesses has more to do with it than the witnesses themselves. They have sent men down from Atlanta to appear on a jury such as the local doctors could not hire even though they were willing to. That was two years ago and they won the suit and ever since then the men have been very enthusiastic members of the County Society and have attended the meetings regularly.

DR. T. J. McARTHUR, Crisp County (Ex-President): The first thing I wish to say is how delighted I am just to be Secretary for this hour. I do not know to whom I owe thanks, whether to the host or to the hostess, and in order that I may not make a mis-

take, I wish to express my appreciation to both.

Any way, I am glad to be here and to say just a few words with reference to the duties of the county medical society secretaries. I agree with much that has been said, and especially with the statement that the secretary of the medical society is probably the most important feature in the society. Those who have been talking have had much to say about what should be done. To my mind, in the average county medical society in this State, from the small cities and rural counties at least, the secretary is the executive officer of the county to the extent that he is looked to do, or to have done, practically all that is done. This is true not only in the question of securing members and collecting their annual dues, but also in securing their attendance and seeing that they perform the duties that they have been assigned. There are a few county society secretaries who really love the work, they enjoy the work, and make efficient secretaries. All of us who have been anything like regular attendants upon these conventions have heard from time to time the Councilors, the Secretary of the State Association and others complain that the county secretaries do not reply to their letters which are written them. Take a man like Dr. Bunce, and my friend Palmer down here, they are natural born secretaries. (Laughter.) They would rather do that than eat. However much Palmer has enjoyed this supper, I happen to know that he would rather be Secretary of the Society than to be President, and if we could find in our county societies men who are adapted to that work we would be much more successful. You will not find in every county society men like Palmer and Bunce and others, but there are some men in the counties more adapted to the work than others and such a man should be given the job and allowed to enjoy it as long as he will—if he wants it, a life-time job. To my mind that type of man who likes the work and is kept in office is the man who will give real service. If

something could be done to impress upon the men who fill these offices the importance of their office and the responsibilities and obligations resting upon them, I believe we would get increasingly good service from them.

As to how a secretary of a county medical society can best secure members and have them pay their dues, I think that necessarily must be worked out by the individual secretary. The main thing is for him to realize that it is his job and that he has not discharged his duty unless he does that. The first thing is to secure them as members and then secure their dues. I would say, too, that to a very large extent upon the secretary himself rests the responsibility of having the various doctors in the county who are considered ineligible made eligible, at least some of them. If the secretary is the kind of man he should be and stays on his job he can preach and appeal to the men in the county whom some regard as ineligible and bring them into the society and have them received, and in that way induce them to have more respect for themselves and be more respected by their colleagues.

I think another thing that is very important and that is a small county society rests upon the secretary of the society, is that there should be something at each meeting that will provide entertainment or pleasure for those in attendance. If they simply spend an hour or two together without getting something out of it you will not get them back to the meetings and upon the secretary of the small county society rests that responsibility. If a man is on the program keep him punched up. Don't wait until a few days before the meeting, but keep after him and make him remember that he has promised to do something. There are various things that a medical society can do that I think the members should feel a responsibility for and not the secretary alone, but since this meeting is a meeting of the secretaries, I would like to emphasize what the President of our State Association said, that some refreshment in the way of a luncheon is quite an attraction and will help

to get an attendance. In a small society it occurs to me that it will not be wise to have the dues large enough to pay the expenses of that at each meeting. This year we have had some member of the society at each meeting volunteer to feed the society at the next meeting, and we have found that this element enters into that. The other members of the society feel that when I am setting the fellows up for supper they are discourteous to me if they are not there, whereas if the society is paying for the luncheon out of the dues they do not have that same feeling. The secretary when some particular man is furnishing luncheon notifies the members of the society and urges the importance of their attendance, and we think that has helped us to get a good attendance.

Another thing which I would like to call to your attention which does not rest solely upon the secretary, for most county societies have their president, vice-president and secretary as their program committee. In small communities like mine the very best years we have had were the years in which we had study courses. We would like to have something like Dr. Sharp is planning in his county and study the heart, the physiology of the heart, the diseases of the heart, and so on, and when we finish that we will go to some other organ. We had more stimulating meetings and did more than we had under any other plan.

This leads to the conclusion that the things to do, first of importance, is to feed them in some way and then give them something to do in the way of a program. I thank you.

DR. V. O. HARVARD, Crisp County (Chairman of the Council): I will not make my talk very long for the reason that there are a good many secretaries here to talk to us.

I served as secretary myself and have been Councillor now for twelve years, so I have been familiar with the work the secretaries have been doing. We have some very good secretaries and some not so good. Some men are very prompt in answering every communication and there are others who an-

swer none. There are some men who go out and collect their dues. We happen to have one in Crisp County who is a good secretary and you will have a chance to hear him a little later. He did not wish to come into the meeting for he thought it would be his last year. He went out and got 100 per cent membership.

I think the thing for the secretary to do is to keep after the men and keep them notified about their dues. Most men want to stay in the Association but some of them are careless. The hardest proposition is to get them to reply to a letter. They all have money and will pay their dues if they are approached at the right time.

DR. J. W. PALMER, Montgomery County (Ex-President): I am reminded of a story about the steamboat on the Mississippi River that had an 80 horsepower whistle and a 40 horsepower engine. Every time the whistle blew the engine stopped work. Every time I open my mouth my brain stops work. (Laughter.)

I have had twenty years experience as secretary and the society is just what its secretary is. I wish to say that the Medical Association of Georgia has been better in the last four years than ever before, and that is due to the secretary. His punch and energy has made it a different association. At the meeting of the American Medical Association something was said about a full-time secretary. I was afraid of that for I felt that our secretary would not be inclined to do that and I was not inclined to support it for fear we would lose our present secretary.

In regard to the best way to secure members, I find this—with the experience we have, we have found that four counties can combine. We maintain our county unit in order to keep our delegate and we meet once a month. In these four counties every man is a member of the County Society except one. I will tell you a good way to stimulate membership. You have to let the men know that they will get something out of it. Then you interest them. When you

tell them of the medical defense connected with our Association, when you tell them of the advancement and knowledge they will gain in medical science, and the progress they will make by affiliating with the Association, that they can never make a mark in life or succeed in medicine if they do not affiliate with the county society and with the State Association, when they begin to see and feel that they will want to sign up with us. I find this a good idea: At our quadruple society we have a rule that every meeting will be published in the county paper and discussion shall be written up in the paper. We have a county paper and when the men who do not attend the meetings see the names of the others who read papers and discussed them, they feel that they are left out in the cold and will not get their share of the practice and at the next meeting they begin to slip in. They see there is something in it for them, and we feel that way about it.

I feel that the medical defense within itself is sufficient to keep every doctor in the county a member of the organization. I think that the responsibility should be entirely on the secretary. They have to have assistance and the president and the members must assist us. You want to see them individually, talk to them and get acquainted with them. If it is hard to get dues go and see them. We do that, and I have our secretary keep after them, too, and find that a good idea. I often remark to the society that what little progress I have made or what little I amount to in medicine or in life is due to my membership in the Medical Association of Georgia. If I had never affiliated with our Medical Association I would not have been known in Georgia. I would not have had the pleasure of attending these meetings and mingling with the doctors. Some of them say to me when I tell them that, "I will read the papers when they are published," but I tell them that they can read all they want to but it is not like seeing and hearing the best men read and discuss papers. I tell them this—you

have probably heard the story about Uncle Henry and Aunt Sue. They had been married a long time and had some domestic trouble and Uncle Henry got mad and went up to Kentucky. After a time, however, he got lonesome and decided that he would come back and live with Aunt Sue, and in thinking about it he tried to remember the things she liked best and what would please her most. He remembered that she liked pig's feet very much so he got a good supply and went down to the old home and rapped on the door and said, "Sue, open the door." She said, "Who's dar?" "This is old Henry, your good ole husband Henry," and she said, "Go away from that door, Henry, you go on." Then he said, "Sue, Henry has come back to you and brought you some more of the good ole pig's feet that you like so well," but Sue said, "Henry, you go away! Go on away, this nigger has quit eatin' pig's feet and is eatin' higher up on the hog." (Laughter and applause.)

DR. CHARLES USHER, Chatham County (Councillor): I just want to say a few words about the Medical Association of Georgia. I think when a man graduates from school the first thing he should do is to join his County Society. The next thing he should do is to join the State Association, and then he should take a few good journals and he should read them. He should read at least an hour a day and if he misses a day he should make it up, and if he reads two hours a day he should not give himself credit for it. I think if the young men will follow this plan it will not be long before they will find themselves. They will write papers and they will find that they do not know anything about the subject and then they will keep on reading and keep on studying, and there will always be plenty of things to study.

In the next few years I think the biggest problems will be in medicine, because surgery has probably advanced more in the last thirty years, surely in the last forty years, than it had before all the way up

from Adam, while medicine has not advanced so much. I think the big problems in the next ten or fifteen years will be in medicine, in the way of making a diagnosis. I heard one of the biggest living surgeons in the country say that the thing that he would like best to be would be a big diagnostician. I think that is the key to the whole thing, and if the young men starting out can be made to become interested in their County Society and the State Association, and can be made to see that it is important for him, I do not think we will have any trouble in keeping our State Association up to standard. I thank you.

DR. C. K. SHARP, Tri-County (Early, Miller and Calhoun) (Councillor): I am rather like the young lady from one of the women's clubs down in my section who wanted to address the Lions about some subject and she wanted to get the Kiwanis Club to endorse the plan. She said, "Every time I rise before a crowd of gentlemen my teeth chatter." The President said, "Take 'em out!" (Laughter.) My teeth do not chatter but my knees wobble a little bit, but I do want to say that the Tri-County Society as composed of Early, Miller and Calhoun Counties, had never been able to accomplish much until we fell for this annual program plan which Dr. Daniel has given you. We find this very successful and the only thing that has ever stimulated any interest in the society has been to have this set program. We meet every two months and read papers. We have the men put their subject down. They have the privilege of changing that subject but they sign the list, and we incorporate in our plan a fine of \$10.00. I doubt if we could carry that out, but since then we have found a growing interest and a growing attendance at every meeting.

I happen to be Councillor from the Second District and I wish to speak to the secretaries on behalf of the Councillors. They cannot appreciate what the Councillor's job is. We want to make our report and we want it to tally with the State Secretary's report, and we want their reports and their dues

promptly. It is hard to get the secretaries to appreciate that. Whenever a Councillor writes for information to a county secretary he should lay his other business aside and attend to it, for it interests not only his society but the whole district. I wish to urge the Secretary to pay attention to the requests from the Councillors.

I would like to have somebody, Dr. Bunce would probably be better than anyone else, define what a non-eligible member is.

DR. C. H. RICHARDSON, JR., Bibb County (Committee on Scientific Work): I wish to thank you for the privilege of being present at this dinner. I am not the county secretary, but I appreciate the work you men are doing. I wonder if you realize that the sessions of the meetings upstairs are dependent on the work you have done this year and that men of your type have done for the past several years?

I wish also to acknowledge publicly my great appreciation of the work that the Secretary of the State Association has done for the past number of years. I feel that the job has grown too big and that he should not be imposed upon long after his present term of office expires, and I feel that the time has come when the State should employ a full-time secretary and pay him well for the work. I appreciate very much the work you men are doing.

DR. THOMAS R. GAINES, Hart County: Up in Hart County we have ten physicians and of those we have nine in the county medical society. I am right after the other man, but have not been able to get him signed up yet. Last year the President, Vice-President and Secretary got up an annual program and had it printed on cards. We sent each member a copy of this program, and then each time two weeks before the meeting, we have monthly meetings, we sent each member another card. That worked very well for three or four meetings, but finally interest began to wane and one of the doctors suggested inviting an out-of-town man to read the paper. That worked

fine for a while. Then I had the pleasure of inviting an out-of-town man and he and I were the only two present. That was embarrassing.

I think the luncheon is the thing that will prove a drawing card. We have a Kiwanis Club and we have three or four doctors there every time we meet, and I believe that if we could have a luncheon or a dinner one night a month it would be a great help in getting out a good attendance.

DR. MARVIN M. HEAD, Pike County (Councillor): I think we have had all the advice obtainable. If half of it was followed we would certainly have a good society. For the last eight or ten years I have been Secretary and Treasurer of our Society. I do not know how or why and would not assume to tell any of you gentlemen how it happened, but we have one of the few one hundred per cent counties in the state, and I am very proud of that.

DR. BYRON DANIEL, Crisp County: I think I have the advantage of the rest of you gentlemen in having two other doctors here to help me out. They have acted as secretary in my place. Dr. Harvard and Dr. McArthur have already gone over the affairs of the society better than I could express them myself, I think. We have a society with a membership of eighteen. It is a small society but we usually have a full attendance and we enjoy ourselves at luncheon and so forth. There is no doubt that we are all benefitted by these societies and with the State Association we surely will get much benefit. Listening to specialists discuss their special lines of work, we are obliged to gain some important information, so I think we should study and do all we can for the future.

DR. O. H. CHEEK, Laurens County: The hour is late and I am sure I can add nothing to what has already been said, so I will merely state that in my county we have 20 physicians and 20 members of the County Society.

Adjournment at 8:10 P. M.

Medical Progress

With the cooperation of our associates we propose to publish under "Medical Progress" abstracts from current medical literature of general interest to the

profession. Members of the association are invited to contribute to this Department.

Anderson, W. W., Pediatrics
Ballenger, E. G., Urology
Block, E. B., Neurology and Psychiatry
Clay, Grady E., Ophthalmology
Dowman, C. E., Neuro-Surgery
Eguen, M. S., Otology, Laryngology and Rhinology
Fitts, Jno. B., Internal Medicine
Greene, E. H., Surgery

Hodgson, F. G., Orthopedics
Holmes, Walter R., Gynecology and Female Urology
Jones, Jack W., Dermatology
Klugh, Geo. F., Clinical Pathology
Landham, J. W., X-Ray and Radium
Pruitt, M. C., Proctology
Thrash, E. C., Internal Medicine
Waits, C. E., Surgery

Immunizing Children Against Dysentery

Wilkins and Wells, of Baltimore, in an institution that cared for children between the ages of six months and eight years, having a population of from 70 to 90 children, were able to check an epidemic of Flexner type dysentery by preparing a monovalent vaccine from the stools of children ill with dysentery. Three doses of 250, 500 and 1,000 million respectively were given subcutaneously at intervals of three days. Altogether 70 children were inoculated. In the two months prior to vaccination 10 cases of dysentery had occurred and the usual methods of control had failed to prevent the spread of the disease. After vaccination only one child developed dysentery. The vaccine had not produced agglutinins in the serum of this one child. The other children, who were tested six weeks after vaccination, had definite agglutinins. The authors feel that definite conclusions cannot be drawn from this single series of inoculations, but that their results are sufficiently encouraging to warrant further attempts of this kind (*Jour. Amer. Md. Assn.*, Vol. 82, No. 20, May 17, 1924, p. 1599).

Gauthier in his campaign against dysentery among Greek refugees employed polyvalent vaccine by mouth. As far as he was able to ascertain no infection occurred among unvaccinated groups. Agglutinins in though the disease continued to prevail

among unvaccinated groups. Agglutinina in high titer were found in the serum of those who had ingested the vaccine (*Bull de l'Acad. de Med.*, 91; 69-84, Jan. 15, 1924).

W. W. A.

The Prevention of Scarlet Fever

George F. Dick, M. D., and Gladys Henry Dick, M. D., in 1923 were able to produce scarlet fever experimentally by swabbing on the tonsils and pharynx of a human volunteer a pure culture of streptococcus hemolyticus isolated from a lesion on the finger of a nurse who acquired the disease while caring for a convalescent scarlet fever patient. A filtrable virus from the same culture failed to produce scarlet fever. They next attempted to obtain a skin test for susceptibility to scarlet fever with the toxic filtrate from the same culture and found that the filtrate, when used in proper dilution, gave positive skin tests in 41.6 per cent of the persons tested who gave no history of scarlet fever; and that it gave a negative or slightly positive, skin test in all convalescing scarlet fever patients tested. By beginning with small doses of toxin, they were able to immunize susceptible persons. The toxin is first carefully standardized on human beings to determine the skin test dose. No animal has yet been found that is suitable for standardization of the toxin. Adults

are immunized by three injections of toxin at five day intervals, beginning with a first dose equivalent to 300 skin test doses, and increasing to 1,000 skin test doses. Experience has shown that the immunization must be carried to the point of a negative skin test. These preventive measures were carried out in a series of 125 persons exposed to scarlet fever, 73 of this series were nurses, who were tested and immunized before exposure, 52 were children who were not seen until after exposure, 63 showed negative skin tests, and received no further treatment, 62 had positive skin tests. Of this number, 52 were immunized with toxin. Ten had positive skin tests and hemolytic streptococci in their throats. They received convalescent serum. None of these 125 persons exposed to scarlet fever developed the disease. If horses are injected with gradually increasing doses of the sterile scarlet fever toxin, they also produce an antitoxin, just as the human body manufactures antitoxin during the course of scarlet fever. The therapeutic value of such antitoxic serum can be determined only by the results obtained from its employment in a large series of cases that have been carefully controlled. (*Journal of the American Medical Association*, Vol. 83, No. 2, p. 84.)

Dangers of Zinc Stearate Dusting Powders

Heiman in 1922 reported twelve cases of accidental inspiration of zinc stearate dusting powders by infants. One baby died within 24 hours. Three developed signs of broncho-pneumonia, with symptoms of acute toxemia, lasting from one to three weeks, but ultimately recovered. In the remaining eight cases, partial asphyxia was followed by gradual recovery without definite involvement of the lungs (1).

The House of Delegates of the American Medical Association in 1923 appointed a committee to cooperate "with manufacturers of said dusting powders, so that caution labels shall be placed on all containers of acid

powders, and that such changes shall be made in the form of said containers so as to prevent the frequently occurring illnesses and fatalities in instances where such powders are used." The report of this committee, in a recent number of "*The Journal of the American Medical Association*" (2) should be read in detail. They requested the medical profession to report cases to them, and took the matter up with manufacturers of zinc stearate dusting powders, in reference to caution labels, tightly fitting caps, etc. Most manufacturers and distributors expressed a desire to cooperate in any effort that might be made in safeguarding infants and others from injury.

The following accident, which came under our observation in March, 1924, typifies well the dangers of aspirating zinc stearate:

On March 16, during the dinner hour, a mother called up frantically stating that her baby, seven months old, had breathed in a lot of dusting powder, and was critically ill. She was bathing him at the time, and gave him the can of dusting powder to play with while she quickly went into the next room to get him some clothes. He was seen within about five or ten minutes after the accident, in a state of profound toxemia, bluish white in color, gasping for breath, with quick, short respiratory movements. The dusting powder proved to be a popular brand of stearate of zinc, the can having large openings in the top. The mother was unable to estimate the amount inhaled, but said that she had removed a large quantity from his mouth, throat, nose and eyes. He was coughing almost incessantly, expectorating a thick, white, tenacious mucus. On arriving, he was suspended by his heels and was beaten in the back vigorously. This seemed to increase tremendously the amount of thick

mucous expectorated, so that he was suspended and beaten for perhaps an hour or an hour and a half. After this he was placed in bed with a thick, large pillow under his abdomen, his chest and head hanging down at a sharp degree. He continued to cough and spit up this same white thick mucous, his position in bed being alternated by suspending him by his heels and beating him in the back, from about 6 P. M. until after midnight, after which his symptoms abated somewhat, and he slept some. The following morning there was a small area of pneumonia in his left back, below the angle of the scapula, about twice the size of a silver dollar. No tubular breathing was heard, there was no impairment of percussion, the only signs being numerous moist rales on inspiration. His temperature per rectum was 101 degrees. The physical signs of broncho-pneumonia persisted for three days, during which time his temperature remained elevated to about 101 degrees. On March 19, 1924, physical signs in his chest began to subside, rapidly clearing up within the next twenty-four hours.

Thirty-four cases were reported to the above-mentioned committee of the House of Delegates. Eleven of these did not state the date of the disease. Of the remaining cases, eleven had occurred since January 1 of the present year. The youngest patient was three months old and the oldest two years. The youngest victim was a three-months old baby, to whom the can had been given as a plaything, and who died within one hour. The symptoms were in all cases immediate, the severity depending on the amount inhaled and the amount lodged in the nose and mouth. In typical cases there

were asphyxia and evidence of collapse, strongly suggestive of a zinc poisoning.

The Council on Pharmacy and Chemistry stated that it is very questionable whether zinc stearate has any important advantage for use with infants over other dusting powders, but that in its judgment it did not seem advisable to stop the sale of stearate of zinc, provided it can be marked in such a form that it will not be a menace.

The committee recommends that the Board of Trustees be authorized to continue the work begun by it to induce manufacturers and packers of stearate of zinc dusting powders to market them in safe, properly labeled containers, and to educate the public with respect to the danger inherent in such powders, and that the board be authorized further, if in its judgment it becomes necessary, to seek federal and state legislation to insure the marketing of such powders in the manner described.

(1) Henry Heiman and Paul W. Eschner, *American Journal of Diseases of Children*, 23; 503-520 (June, 1922).

(2) American Medical Association, 83; 120 (July 12, 1924).

W. W. A.

LIST OF EXHIBITORS AT THE AUGUSTA MEETING, MAY 7, 8, AND 9, 1924.

Surgical Selling Company, 65 Forrest avenue, Atlanta, Ga.—Representative, Mr. O. A. Spruell.

Radium Chemical Company, Pittsburgh, Pa.—Representative, Mr. G. T. Taylor.

Denver Chemical Mfg. Company, 22 Grand street, N. Y.—Representative, Mr. T. F. Newman.

V. Guyer, Jacksonville, Florida—Representative, Mr. Guyer.

Perryman-Burson Company, 23 Houston street, N. Y.—Representative, Dr. J. A. Grimes.
 Ben Perryman.

Camerons Surgical Specialty Company, 110 W. Oak street, Chicago, Ill.—Representative, Mr. M. H. Wodinger.

Victor X-ray Corp., 77 Forrest avenue, Atlanta, Ga.—Representative. Mr. Lang.

Horlick's Malted Milk, Racine, Wis.—Representative. Mr. J. M. Todd.

H. A. Metz Laboratory, Inc., 122 Hudson

Acme International X-ray Co., 519 Peach-tree street, Atlanta, Ga.—Representative. Mr. A. Hajos.

Swan-Myers, Indianapolis, Indiana—Representative, Mr. C. B. Buchanan.

Estes Surgical Supply Company, 16 N. Forsyth street, Atlanta, Ga.—Representatives, Mr. C. W. Mills and Mr. B. J. Harrison.

A Medical Education

is seldom completed in college. There is some new development in medical science almost every day. Iletin, radium and x-ray are recent examples. A physician must read to keep abreast of the new appliances and remedies.

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Original Articles

CARE OF THE NEWBORN*

O. R. Thompson, Ph. B., M. D.,
Macon, Ga.

Biologically considered life begins with the fertilization of the ovum and ends with death. The time of its termination makes but little difference. Whether in early foetal life or advanced old age, the result is the same, and the fact is not altered, a new life came into being and survived the hazards to which all life is exposed. The hazards are greater during the prenatal, natal and neonatal periods. It is during these periods that the physician, who has assumed the responsibility, can do his greatest work in saving human life.

We have only to review the statistics to find the appalling loss of life occurring during these periods, and clearly see that we are falling short in our work of prevention.

Unfortunately we are unable to obtain statistics of value from the entire United States and have to rely upon those from the birth-registration area, which comprises a little more than 40 per cent of the land area of the country, representing about 65 per cent of the entire population. During 1921 there were reported in the birth-reg-

istration area 1,714,261 live births, a birth rate of 24.3 per 1,000 of the population. The mortality rate for the neonatal period was 33.6. Applying this birth rate to the entire population of the country there should have been 2,620,348 live births. A mortality rate among these infants of 33.6 per 1,000 live births from prenatal and natal causes would mean the loss of 87,781 babies during the first two weeks of life.

Statistical accuracy in estimating the loss of infants attending birth is impossible. The proportion of still-births due to natal instead of prenatal causes is impossible to determine with our present carelessness in reporting and giving the correct causative factors. The only extensive statistics on still-births are those from the birth-registration area (exclusive of Massachusetts, Rhode Island, Washington and Baltimore) for the year 1918. The rate per 100 live births was 3.9 per cent. In France 4.7 is the accepted rate. Cragin at the Sloans Hospital had a still-birth rate of 4.7 in 9,769 births. Applying this rate to the estimated number of births in the entire country, we can readily see that our natal loss is approximately 150,000 per year.

The relative proportion of still-births due to prenatal and natal causes, according to our leading authorities, credits accidents and traumatism of labor as being respon-

*Read before the Sixth District Medical Society.
Indian Springs, Ga., June 24, 1924.

sible for from one-half to three-fifths, thus giving us an annual loss of more than 75,000 infants.

What can be done to prevent such a great loss of human life? Better obstetrics. A more conscientious and thorough prenatal observation, more patience, conservatism and better judgment at the time of the delivery, and last, more and better attention paid the newborn.

The infant's hold on life during the first days is insecure. All the factors working against the youngster should be carefully guarded and every available means brought into play during the prenatal period whereby there will be as great a resistance as possible at the time of birth. Obviously, factors tending to decrease the vigor of the child, tend to make it succumb more readily to the dangers of labor. The early diagnosis and immediate and thorough treatment of maternal syphilis; instructions to the mother regarding her hygiene and diet, thus preventing toxemia and eclampsia, with the practically unmistakable evidence of its existence yielded by the presence of albumen in the urine, and an increased blood pressure, before the occurrence of pronounced symptoms; instituting a diet more suitable for the development of the foetus and especially the foods rich in mineral salts, thus preventing disease of the skeletal system; prevention of prematurity by properly guarding against undue exercise during the last third of pregnancy; adequate treatment of the general debility diseases; early recognition and adequate treatment of placenta previa and the occasional unfortunate accidents of pregnancy. The prenatal period is the period for safe-guarding the mother and helping her to develop within her uterus a healthy, vigorous child, capable of withstanding the dangers incident to labor.

At the end of the long expectancy comes labor, lasting on an average of from ten to fifteen hours. It is within these few hours the strength and resistance of the

foetus, the proportions between the passage and passenger, and the judgment of the attending physician are put to the test. It is estimated that one-half of all the stillbirths are due to natal causes and there can be no doubt that such factors play an important role in the mortality of the neonatal period. The death rate for infants attributed to birth injury is steadily on the increase. The vital statistics reports of the United States Census Bureau show a rate of 6.1 per 100.00 of the population for 1906, 6.9 for 1910, 8.1 for 1913, and 10.1 for 1921, representing the death of 8,986 infants as due to this cause. The reduction of this great number can only come by a more intelligent, conscientious, skillful and conservative conduct of labor.

According to Ehrenfest, our best authority on birth injuries, "In 40 per cent of the necropsies performed on all still-born infants and those dying within the first few days of life, definite traumatic intracranial lesions can be discovered." If 40 per cent of the natal and neonatal deaths are due to intracranial injuries, there must be a greater number that receive injuries and survive the neonatal period to die later or carry the injury through life manifested, according to the neurologist, in the form of feeble-mindedness, idiocy, epilepsy, speech defects, etc. Facial palsy, Erbs' paralysis, fractures of the long bones and epiphyseal separations occur too frequently and oftentimes in a normal delivery. This being the case we should not forget our part in the prevention of birth injuries, and constantly avoid the predisposing factors. The primary causes are without exception mechanical. The intracranial structures are damaged by the forcible, excessive, or, especially, by the quick compression of the head, such as precipitate labors, driving an unmolded head through an unprepared birth canal with pituitrin, allowing the head to remain too long on a rigid perineum, prolonged labor with faulty position; difficult forceps extractions; breech labors with too rapid or difficult extraction of the after coming head. There is still a

group of fatal intracranial injuries in which labor was easy, spontaneous, often precipitate, the child small and frequently premature, over which the physician has no control. In these instances prematurity or general weakness has rendered the infant abnormally susceptible to the trauma of an apparently normal labor.

To offset the dreaded long labors, a few men in different sections have gone to the extreme and are shortening labor by using large doses of pituitrin extract, forceps, extraction, version and Caesarean section in order to protect the child against injury of the brain. This point is a debatable one, but from my experience and careful study of the problem, I am convinced that the long continued compression of the foetal head is less dangerous than a quick compression and rapid delivery. Statistics quoted above show a decided increase in foetal death rate from birth trauma, and it stands to reason that the unnecessary interference is greatly responsible for the increase. All traumatization cannot be avoided, but the prophylaxis of its greater part lies not in the "greater mechanical skill in the execution of obstetrical manipulations and operations, but in a diagnostic ability in recognizing minor anomalies in the configuration of the pelvis or in the mechanism of labor, and finally that undefinable quality of sound judgment in decision, whether or whether not, and at what moment interference is necessary and likely to prove advantageous."

Asphyxia of the child during labor is one of the greatest causes of still-birth and is brought about by an increase in carbon dioxide content of the foetal blood with resulting stimulation of the respiratory center thus causing premature efforts at respiration.

The causes leading to increased carbon dioxide content of the foetal blood, according to Bartholomew, are maternal and foetal. The maternal causes are those affecting the character of the mother's blood or

limiting the supply to the placental area. Tetanic contraction of the uterus causes a congestion of the circulation at the placental site, preventing a free interchange of oxygen and carbon dioxide. The injudicious use of pituitrin and especially large doses accounts for a great many cases of asphyxia during labor by producing a state of tonic contraction of the uterus.

"The foetal causes are those affecting the placenta and foetal circulation through the cord, premature separation of a normally implanted placenta, placenta previa, direct compression of a low-lying placenta by the head, pathologic changes in the placenta as the results of extensive infarcts or syphilitic infection interrupting the exchange of oxygen and carbon dioxide, leading to asphyxia either gradually or suddenly. Direct pressure on or constriction of the umbilical cord by knots, coils, twists, or prolapse is a frequent cause. The external pressure on the head itself by a tight contracted pelvis during labor, or severe or prolonged compression of the head by forceps, or internal compression of the medullary centers by intracranial hemorrhage, may produce asphyxia of the child during labor."

Frequent auscultation of the foetal heart sounds is the only way threatened asphyxia of the foetus may be detected. Increasing concentration of the carbon dioxide in the foetal circulation stimulates the vagus inhibitory of the heart in the medulla, thus producing a slowing of the foetal heart rate. Normally during uterine contractions there is a slowing of the foetal heart to 100 or 110 as the result of the temporary stagnation of the maternal circulation at the placental site, followed by a more rapid normal rate as soon as the uterus relaxes. If the carbon dioxide content of the foetal blood is on the increase, there will be a persistent decrease in the foetal heart rate, which will not return to the normal rate between pains.

As the asphyxia deepens there will be an

apparent stimulation of the intrinsic nerve mechanism of the intestinal musculature, resulting in increased peristalsis and the expulsion of meconium. The presence of meconium stained amniotic fluid in vertex presentations is always indicative of foetal embarrassment, and labor should be terminated as soon as possible. In breech presentations the presence of meconium is indicative of the advancing breech. During labor the character and rate of the foetal heart should be frequently determined, thus keeping familiar with the condition of the foetus and should foetal embarrassment begin, immediately institute some method to effect delivery.

After the last torturing pain has accomplished its purpose, a new being has come into the world, the attendant makes the baby breathe by spanking it, ties, cuts the cord, and smiling, hands the crying form to the proud grandmother or some one with instructions to "fix him up." He then repairs the lacerations, should there be any, delivers the placenta, fixes up the mother, washes his hands and drives away feeling that his work was well done. With the mother, probably so, but the infant has received secondary consideration.

The delicate human being requires every consideration, and if we are to reduce the death rate during the neonatal period the care of the baby must begin as soon as the head is expressed from the vulva. The vernix and secretions should be carefully removed from the eyes, mouth and nose, the head supported to prevent it from falling into the pool of blood, urine, amniotic fluid and feces usually present around the woman's buttocks. Should the infant try to breathe with its mouth and nose immersed in this pool there is nothing to prevent the aspiration of this fluid into its lungs, thus giving an etiologic factor in the causation of pneumonia, or plugging the air passages and making resuscitation more difficult or impossible.

After the head is delivered the problem of safely delivering the shoulders presents

itself, and here great care should be exercised or there may result a fracture of the clavicle, humerus, or stretching the brachial plexus by too forceful traction on the neck, giving rise to Erbs' paralysis, a permanent injury. There is some difference of opinion as to which shoulder be delivered first. In my experience the easiest one to deliver is the one that should be delivered first.

After the baby is delivered it should be placed on a clean, preferably sterile, towel and turned on the right side. If the heart is beating regularly, there should not be any hurry to establish respiration. Spanking and slapping the baby's back is unnecessary. The air coming in contact with the delicate skin of the baby will be sufficient stimulation or irritation to induce attempts at respiration. Gentleness is the prime factor and too brusque handling is condemned. If mucus is blocking the air passages the infant may be caught by its ankles with the left hand, and turning its head down and gently massaging the mucus from the throat and mouth with the thumb of the right hand will suffice to clean the passages and also prove sufficient stimulation to produce a cry.

The resuscitation of a premature or partly asphyxiated infant presents a more difficult problem, and here we have the greatest indication for gentleness. The premature is not strong enough to stand brusque handling. In the partly asphyxiated and especially one in which the etiologic factor is some cerebral injury, the condition may be made worse by too rough manipulation.

Should there be any difficulty in establishing respiration, various methods may be employed, keeping in mind that brusque methods are not only unnecessary but dangerous. The baby may be held with its chest resting on the palm of one hand, with head, legs and arms hanging forward, thus compressing the chest, then turned over on its back, in the other hand, in which position the head, legs and arms hang back-

ward, thus expanding the chest and favoring an inspiratory movement. Alternate repetitions of this position, about twenty times per minute will often establish satisfactory respiration. Another method, previously used but now discarded by most obstetricians on account of its danger to the child, was that of alternately plunging the baby into tubs of hot and cold water. The danger of chilling the baby is considered too great, and instead a little cold water is dashed upon the face and chest, while the baby is immersed in warm water about 110 degrees.

The most efficacious method and the one that will do less injury, is that of holding the baby continuously in a tub of warm water and alternately extending and folding its body, thus keeping it warm while stimulating inspiration and expiration. Mouth to mouth insufflation may be employed while the baby is in warm water, by protecting its face with clean gauze and blowing directly into its mouth at intervals corresponding to those of normal respiration.

The tying and dressing the cord and the treatment of the eyes with silver nitrate is too well known by every physician to demand a description here. Care should be taken in thoroughly washing all the silver nitrate from the eyes with normal saline or boric acid solution, within five or ten minutes. Should the silver nitrate be left in there is sure to develop a chemical conjunctivitis. Argyrol, 10 to 20 per cent solution, is as effective as silver nitrate, but always requires a freshly prepared solution.

After respiration has been established the infant should be placed in a warm blanket, and if the temperature of the room is low, hot water bottles should be placed around the blanket. This is one point greatly and unfortunately overlooked by most physicians, and especially in the case of premature infants. There is a drop of 10 to 30 degrees in temperature immediately after birth, and the chilling of the infant at this time gives the youngster a bad start, and one that may require days to overcome.

After the mother has been made com-

fortable, we should then turn our attention again to the infant, making a careful physical examination, and in the meantime giving it the usual coat of oil. To me this is the physician's job, and not the nurse's, grandmother's or some neighbor's. During the physical examination all the congenital malformations, rickets, diseases of the skin, and injuries that might have been received during birth are sought for. Fractures of the femur or humerus, Erb's paralysis, and facial palsy are easily detected, while fractures of the clavicle are more difficult and may not be detected, until there is a callous formation at the site of the fracture. These are often found by the nurse or grandmother and of course places the doctor in an embarrassing position. The intracranial injuries are more difficult to detect at first and usually require close observation for a few hours. According to Ehrenfest the usual symptoms that present themselves are: "a spasticity limited to one extremity; the extension of this spasticity; to another extremity; the unilaterality of symptoms; the delayed involvement of cranial nerves; or a sequence in the development of these symptoms, which occasionally, exactly like an experiment, accurately indicates the primary focus of the hematoma and its gradual extension in a certain direction within the skull." An immediate ophthalmoscopic examination, a study of the blood clotting time, and prompt spinal puncture are our greatest diagnostic aids; and the latter is our best therapeutic measure in reducing the increased intracranial pressure, present in all intracranial hemorrhages.

Our nursing instructions are quite uniform. The important part and the one that has not really occurred to most physicians is that of supporting the infant with complementary feedings before the mother's milk has become established.

The initial loss of weight in the newborn is physiologic, and is caused by the infant excreting more than it assimilates. The amount of meconium averages three

ounces, the urine from one to three ounces, and there is a decided loss by way of the skin and lungs. According to the statistics of Dluski there is a loss of 150 grams in those infants weighing 1500 to 2000 grams, and a loss of 270 grams in those weighing 4000 to 5000 grams. After the first loss, which is essential, if there is not some support, either from an ample supply of mother's milk or some artificial means to prevent further dehydration, the loss will become pathologic and a dehydration or inanition condition will be the result. The baby's skin will become flabby and wrinkled, temperature elevated, its breath will have a typical acetone odor. To combat this condition, which will develop in a majority of the newborn babies and especially those weighing eight pounds and over, we must supply fluids. During the first twenty-four hours the average baby receives six to ten c. c. of colostrum at each nursing. During the second day it receives from ten to twenty, and during the third, rarely receives as much as one ounce at each nursing which is entirely inadequate to supply its demands. The deficiency is easily met by giving the baby a complemental formula. In the homes where all the conveniences are not at hand, boiled water, to which has been added enough cane sugar, glucose or lactose to make a five per cent solution, is sufficient. During the first few days and until the mother's milk "comes," water is the essential factor, and if there is any doubt about getting the formula properly prepared, I rely entirely on boiled water, to which has been added a small amount of cane sugar to make the solution more palatable. The boiled water or weak sugar solution should be given after each nursing and continued until the mother's milk has become established. When the baby is getting sufficient milk from the breast he will take less and less of the solution and finally refuse it entirely. Babies, who have received

complemental feedings, escape the dehydration and starvation of the first few days of life, show less initial weight loss, and are in should the breast fail to produce sufficient better shape to take a real milk formula milk for their nourishment.

Conclusion

Infant mortality during the neonatal period is in greater part caused by conditions arising during the prenatal and natal periods.

During the prenatal period the mother should be carefully watched; instructed in hygiene, diet, proper exercise and taught to avoid the accidents that may lead to a premature delivery.

The factors in the production of foetal death during the natal period are mechanical and the death rate can only be reduced by a more careful, conscientious and conservative conduct of labor.

The hazards surrounding the newborn are great, and its hold on life is insecure. The early recognition of congenital anomalies, diseases and birth injuries, with adequate treatment; prevention of exposure and the supplying of sufficient fluids during the first few days, or until the mother's milk has become established are the greatest steps in the prevention of such a high infant mortality rate during the neonatal period.

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RENAL TUBERCULOSIS WITH INCREASED FUNCTION***Report of Two Cases****Wallace L. Bazemore, M. D.,
Macon, Ga.**

Increased urinary output from a tuberculous kidney is common. In looking over the records of the Urological Department at Bellevue, we find that increased urinary output, with lowered specific gravity, diminished urea and diminished phenol-sulphone-phthalein is constant. In cases of occluded tuberculosis, of course these observations could not be made. There were a few instances wherein ureteral catheterization was not accomplished, but the transvesical collection of cases bore out the above findings.

In search of the literature I have been unable to find a report of renal tuberculosis with diminished urinary output and with increased urea and increased dye output. The two cases reported below are unique in this respect. I think that these two cases definitely show that a kidney which is tuberculous may have a better function than its non-tuberculous and probably normal mate, and yet at the same time this is no argument against not removing it, in fact when such a condition exists, it is all the more reason for removing it, because the excellent function means early tuberculosis, and the early removal of a tuberculosis process offers much better chances for complete cure than the removal of an advanced process.

Case No. 1

Patient, W. L. American; age 32 years; was admitted to the urological ward at Bellevue, February 1st, 1923, complaining of left lumbar pain, dysuria and frequency of urination. The loin pain was of a dull aching character and intermittent. It was first noticed four years ago. There was no radiation. Burning urination had been present for the past four months. Patient urinated four to six times by day and the same number of times by night. He noticed scanty hematuria at single urinations on three occasions. There was no loss of weight,

no cough or night sweats. Hemoptysis of short duration five years ago.

Patient's general health good until four years ago. Used tobacco moderately, no alcohol or drugs. Pneumonia and pleurisy six years ago when he was sick for three months. No history of venereal disease. Left orchidectomy for tuberculosis three years ago. Wound healed promptly.

Family history was negative.

Physical examination revealed the following: A fairly well nourished and well developed white male. Moderate pyorrhea. Supraclavicular systolic pulsation; breathing distant at both bases; faint blowing systolic murmur localized at apex. Right kidney was easily palpable and slightly larger than normal. There was no tenderness. Palpitation of left loin negative. There was a left scrotal scar, contents absent. Hard nodule pea size, at both head and tail of right epididymis. Vas normal. Outer borders of prostate indurated and slightly nodular. Seminal vesicles normal.

Urine was of straw color, hazy, specific gravity 1023; acid in reaction; trace of albumin, 30 pus and 15 R. B. C.'s to the H. P. F. Catheterized specimen was positive for tuberculosis. Phenol-sulphone-phthalein after intramuscular injection, shows 35 per cent in first hour, 16 per cent in second hour. Blood constituents normal and blood Wassermann negative. Systolic blood pressure 146, diastolic 78; average temperature 101. X-ray of chest showed on signs of tuberculosis.

Cystoscopy under local anesthesia showed the following: Bladder capacity 6 oz.; general moderate cystitis with considerable free pus floating in bladder. Both urethral orifices normal in appearance and position. Slight edema of bladder neck. No obstruction to catheterization of ureters for 26 cm. 1 c. c. phenol-sulphone-phthalein was given intravenously, the dye appearing from the right side in eight and one-half minutes and from left side in eight minutes. A ten minute collection was made, showing 7 per cent phenol-sulphone-phthalein in 5

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*Urological Service, Bellevue Hospital.



Pyelogram of Case No. 1.

c. c. of urine from right side; 8 per cent phenol-sulphone-phthalein in 3 c. c. of urine from left side. There were seven grams of urea per litre on the right side and eight on the left. Specimen from right side clear and microscopically negative; that from the left was hazy, showing scattered pus and blood cells, a few small bacilli and clumped acid fast bacilli.

A second kidney study three days later, using indigo-carmin showed good concentration from both sides, the dye appearing from the right side in eight minutes, 4 c. c. being collected with urea 9.5 grams per litre. The dye appeared from the left side in six minutes, 21-2 c. c. being collected. There was 10.5 grams per litre from the left side. Acid fast bacilli present.

At the first cystoscopy an X-ray together with a pyelogram was made, the report of which follows: The left kidney was at the level of the transverse process of the fourth lumbar vertebrae; right at same level. Both kidneys of moderate size. Pyelogram of left kidney reveals the pelvis and calices to be slightly dilated. Dilatation of lower end of ureter. No stone.

At operation Feb. 24th, I found kidney adherent at both poles, with ureter the size of little finger. Nephrectomy without drainage.

Grossly, the whole of the parenchyma was somewhat opaque, particularly towards the pelvis of the ureter. One pole was grayish yellow over a wedge-shaped area about



Drawing made by Dr. Louis Ignelzi, of Pittsburg, showing early tuberculosis of kidney and pelvis of ureter.

2 cm., broad at its base. The mucous membrane of the cavity was covered with grayish yellow and bluish granules.

Histology: Almost complete destruction with numerous isolated and confluent tubercles with marked fibro-blastic reaction in the area described.

Diagnosis: Early tuberculosis of kidney and pelvis of ureter.

Patient was up on fourteenth day, wound completely healed, temperature normal. At discharge urine showed 10 pus cells per H. P. F., a trace of albumin, specific gravity 1.026, hazy. He voided four times by day and once at night. No dysuria. Urine negative for tuberculosis. Patient was seen the following November and had gained eleven pounds, was free from all symptoms, with sparkling urine. Phenol-sulphone-phthalein first hour 30 per cent, second hour 20 per cent, after intramuscular injection.

Case No. 2

Male, 32 years old, married, no children. April 30th, 1915, came in complaining of spontaneous frequency of urination, and occasional terminal hematuria.

Family history: Two sisters died with meningitis, presumably T. B.

Personal history: Denied venereal disease. In 1902 cured of pulmonary T. B. by two months in mountains. In 1908 pneumonia; well all summer; three months holiday in fall. 1906, 1907 and 1909, nervous breakdown. Present illness: On February 19th, 1915, spontaneous frequency of urination, every few minutes for two hours. Up twice at night, March 4th. Urination became painful at times, and on a few occasions noticed blood in urine. Considered his weight normal—157 pounds in clothes—and he was six feet 13-4 inches in height.

Physical examination: Negative except a distinct swollen elastic left lobe of prostate, with no induration.

Cystoscope showed congested left ureteral orifice. Phenol-sulphone-phthalein appeared in three minutes after intravenous injection from each kidney, and in ten minutes thereafter left kidney excreted 10 per cent, right 18 per cent. Urea 10 grams to the litre from each kidney. Clumps of pus from left side, none from right. No T. B. found. Urine obtained by catheter showed pus, specific gravity 1.022, albumin positive; clumps of acid and alcohol fast bacilli. Phenol-sulphone-phthalein 48 per cent first hour, 21 per cent second hour after intramuscular injection.

Gave up his business and took open air treatment at sanitarium, and on November 15th, 1915, wrote that he felt well, urination normal, weight 180 pounds. He was on tuberculin treatment. On December 2nd, 1915, weight 184 pounds. Rectal examination showed large prostate lobes. Cystoscope showed granulated trigone, and both ureter mouths looked a little swollen. Ureter revealed the following: Right side 5 c. c., urea 1.3 per cent. Phenol-sulphone-phthalein appeared in five minutes, 17 per cent in fifteen minutes thereafter. Left specimen, 5 c. c., 0.9 per cent urea. Much pus, acid fast bacilli. Phenol-sulphone-phthalein appeared in six minutes, 12 per cent being collected in fifteen minutes thereafter.

December 6th, 1915, the left kidney was removed. Kidney looked entirely normal except for a single eroded papilla at upper

pole, and a little inflammation of adjacent pelvis. This was reported T. B.

December 23rd, home weight 177 pounds.

September 26th, 1916, weight 191 pounds. Acid fast bacilli could not be found after repeated searches. There were still a few clumps of pus cells in urine. Albumin was reduced to a faint trace.

April 25th, 1917, weight 192 pounds. Entirely well. No acid fast bacilli.

April 27th, 1917, for the fourth time at intervals of six months urine negative for T. B. Urine contained less than 10 red blood cells to the field.

THE PRE-ECLAMPTIC STATE, ITS POSSIBLE DIAGNOSIS AND TREATMENT*

H. M. Hall, M. D.
Cedartown, Ga.

The occurrence of several cases of puerperal eclampsia coming under my observation is the reason for bringing before this Society an old, but ever dreaded complication of pregnancy and the puerperium, with the hope that its discussion will develop some new thought of value to the writer, and perhaps to others, in determining the diagnosis of pre-eclamptic conditions, and instituting measures which will certainly prevent it and relieve the patient of the dangers and the attending physician of the stigma of neglect which always accompanies such complication.

In the first place, both the profession and the laity have always been more or less under the impression (which I believe erroneous) that when a case of eclampsia occurs under any circumstances, that either the patient has been negligent in calling the physician's attention to certain apparent conditions, or that the physician himself has failed to properly instruct the expectant mother what symptoms might arise which would make it advisable to consult him.

These selected cases in mind would seem to refute this idea.

Case No. 1: Primagravida, was according to best computation ten months preg-

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nant; was very much worried on account of delay, and had frequent urinalyses made, all of which were negative, as to albumen and casts, had little swelling of feet and was very comfortable, but impatient. B. P. 125 to 130s. Three days before labor had severe headache. B. P. 145. Elimination begun and headache ceased. Urine negative. Labor came on naturally. When dilatation was about half complete, she had a severe convulsion, with B. P. of 200. Dilatation was completed manually, with delivery with forceps. Child not viable. Recovery complete. She had a second child two years later—no complications.

Case No. 2: Normal pregnancy, absence of nausea and vomiting of pregnancy. Urine negative and B. P. four days before convulsion 140. Patient feeling in best of health. Elimination and milk diet on account of the B. P., but a convulsion occurred while patient was sitting on the front porch. Expectant treatment for 24 hours of Morphine $\frac{1}{2}$ grain, and 20 gtt Veratrum Viride were given, and the latter repeated gtt X, q. l. h. until the pulse came down and the B. P. was reduced. Breech presentation, normal delivery, very slight tear requiring only one suture, child living. The B. P. was 165 after the first convulsion, mounting to 220, except when under influence of veratrum viride. Mother and child made a good recovery.

Case No. 3: Normal pregnancy, absence of nausea and vomiting of pregnancy. Patient had attacks of appendicitis, mild, for several years, but felt better during pregnancy than for some time before. Repeated chemical and microscopic examinations of urine, which were negative except for trace of sugar, (doubtful); B. P. 120-30, patient on milk and graham cracker diet for about two weeks, with cascara pill each night for about two months, together with compound jalap powder and phospho-soda every morning for a couple of weeks. Several liquid stools each day. Four days before convulsion there was some swelling of feet, which in the absence of any urinary symptoms or increase in B. P., was attributed to pressure. Two days before onset of convulsion face

began to swell and she complained of headache. B. P. 140. Twenty-four hours before onset headache relieved, but B. P. rose to 190, but by putting patient to bed and further elimination it dropped to 170, the swelling in the face was markedly reduced, and the patient spoke of how much better she felt. At 11 P. M. and at 1 A. M. she had free watery stools, and said each time that she was "feeling fine." She slept very well, with the exception of the two interruptions for stool. At 4 A. M. a convulsion occurred. Gtt. 20 of Veratrum Viride was given at once. At 9 A. M. examination revealed cervix soft and partially dilated. Accouchement force at 11 A. M., the cervix being soft and dilatation well under way. Occiput posterior and delivery somewhat delayed. Baby apparently not viable (white baby), but resuscitated after some time. Complete amaurosis in case of mother. After some complications, mother and baby both show good recovery. (There were no "labor pains").

It is on account of such cases and reports of others occurring in maternity hospitals where every resource of science is available and used, that leads me to believe that in many instances, with our present state of knowledge, such cases will occur in spite of all efforts, and that a more thorough understanding of the etiology must be arrived at before such accidents can be prevented.

In regard to the etiology, so many theories have been advanced that it would be a waste of time to discuss them, as their application has never accomplished any practical results, and are mentioned only as an evidence that the condition of eclampsia is universal, and that the best minds of the profession have been working for years, and are still at work, in the effort to find its cause and eliminate its dangers.

Some few points need be noted: that the majority of cases of eclampsia occur in primagravida and in twin and multiple pregnancies and prolonged labors, and as pressure over the kidneys has been shown to produce albumen, this pressure of the gravid uterus might be classed as a predisposing cause.

Others mention mammary gland secretion, and advise keeping the colostrum milked from the breasts. Kaiser believes in the insufficiency of the ductless glands, and gives thyroid and para-thyroid extracts. DeLee says that absolutely nothing new or definite has been established as to etiology or treatment in the past few years, and that our present knowledge is limited to its chief features—pregnancy, usually a first pregnancy with renal and hepatic insufficiency, and a toxemia therefrom which throws a strain upon the kidneys and nervous system. This toxin may be the result of kidney changes, of excretions from the foetus, or of changes in degree. Tweedy says that ordinary food becomes poisonous during pregnancy, and when in this condition gives rise to toxemia and eclampsia, and advises starvation diet. Pinard says that he had not, in 35 years of practice seen a case of eclampsia develop in one who had been on a milk diet for 8 days.

The tendency towards eclampsia increases with the advance of pregnancy, and the mortality of the mother decreases proportionately, that is, the danger to the mother is greatest when convulsions occur before labor begins, is less when they occur during labor, and least when the first convulsion occurs after delivery. Statistics by Green of the Boston Lying-In Hospital, gives the mortality rates in the above cases as: 46 per cent, 25 per cent and 7 per cent, which would seem to indicate that the foetus is the exciting cause of the eclamptic state, and that its rapid removal would be the first indication.

Of importance to the general practitioner who is deprived of the opportunity of keeping all his expectant cases under constant observation are those premonitory symptoms of the pre-eclamptic state which occur as danger signals and upon whose appearance the patient should be instructed to notify the physician at once. Be careful not to cause alarm but to have her call her physician's attention to any swelling of the feet, hands or face, headaches, sleepless nights, nervousness, bounding pulse, dizzy sensations, disturbances of vision, epigastric

pains or muscular twitching.

While these symptoms were absent in two of the cases mentioned, some or all of them may be present and are the premonition of an approaching crisis.

Wherever possible urine examinations should be made monthly during the first 7 months, and every two weeks during the last period, and a careful record kept of the findings; albumen, sugar, casts, indican, acetone, should be looked for, and if found, a careful regulation of diet, and exercise should be instituted, observations made of blood pressure, and elimination pushed. All positive findings are frequently absent however, almost up to the hour of the onset of convulsions—and my limited experience would lead me to believe that the most constant sign of impending trouble will be an increase in blood pressure, or a circulation which is evidently overcharged with toxic material.

Whenever the blood pressure, which in the normal individual (Primipara) is around 120 mm, goes up to 130 mm, then 140, the time has arrived to institute active measures, for the other symptoms heretofore mentioned will follow with startling rapidity unless treatment is immediately begun and heroically pursued. The B. P. will mount higher, 160 to 200; albumen to a higher percentage will appear in the urine, dizziness, blindness and muscular twitching, begin, and the attack is on.

In the event of the above symptoms occurring during the course of pregnancy, preventive treatment, or the treatment of toxemia should be given at once. Diet: reduction of food to a minimum; especially nitrogenous. A rigid, mild diet, or even starvation, until these manifestations are under control. A thorough stimulation of all of the emunctories: purgation; this may be accomplished by large doses of calomel, combined with large doses of compound jalap powder, daily doses of aloes, the free use of magnesium sulphate, and colonic irrigations, using a normal saline solution, in quantity from 3 to 5 gallons: Diaphoresis may be accomplished by warm tub baths, hot packs, and the following pill is recom-

mended by Edgar, and may be given each night, followed by saline in the morning: Calomel, Squill and Digitalis, aa one grain, and Muriate of Pilocarpine 1/20 grain; by the use of this pill, four of the cardinal conditions of elimination will be fulfilled: the skin, kidneys, bowels and liver. The use of Glonoin is invaluable in these cases of hypertension, and Veratrum in moderate doses, carefully watched until the B. P. falls to 140 and pulse below 80: fresh air is also indicated, and a moderate amount of exercise after the patient's condition will permit it. The patient must be watched while in the hot pack for signs of weakness, or even collapse if it is continued too long, and some stimulant may be demanded.

THE CARE OF THE INFANT*

R. C. Maddox, M. D.
Rome, Ga.

In recent years a great deal has been written on the subject of life extension. This phase of medical progress is intimately associated with infant mortality, "It is plainly apparent that a great infant mortality is a national disaster; on the one hand, because numerous economic values are created without purpose and prematurely destroyed, and, on the other because the causes of the high rate of infant mortality affect the powers of resistance of all other infants and weaken the strength of the nation in its next generation." (Schereschewsky, U. S. P. H. S.)

Pediatricians may be justly proud of the progress made in the past 25 years, but when we remember that approximately 300,000 children died in the United States last year before they reached the age of one year we must admit our failure. These deaths may be divided as follows: 100,000 stillbirths, 100,000 during the first month of life, and 100,000 from all causes during the remaining eleven months of the first year. (Akin, U. S. P. H. S.) We may conclude from these figures that all stillbirths were due to maternal disability or to some influence affecting the foetus through the mother. We may also conclude that a majority of deaths oc-

curring before the first month are due to conditions existing during the prenatal period or else occurring during labor. The care of the infant is therefore divided into two essential stages. The prenatal and the post-natal.

The prenatal care is necessarily the duty of the obstetrician, who in the majority of cases in our section is the family physician. This care should begin at the time of conception if it is possible. It would be presumptuous on my part to stand before you and tell you how to care for an expectant mother and carry her safely through her confinement, but the successful birth of a child has in no way ended your responsibility. It must be a healthy child.

This brings us then to a consideration of the factors which influence the development of the foetus. I will purposely avoid a discussion of heredity but will take up the most important of the known subjects, which is maternal diet. During the period of gestation the mother usually has considerable perversion of taste and an abnormal appetite. This leads to the consumption of numerous odd and indigestible foods. Frequently we see expectant mothers who subsist almost entirely upon such articles as olives, pickles, ice cream, and cake, and quite as frequently her physician tells her to eat anything she pleases if it agrees with her. It is reasonable to presume that the foetus derives its food from the maternal blood stream. It is also reasonable to presume that the foetus requires the same food elements before birth that it will require after birth; if then the mother goes through her period of gestation on a diet deficient in any of the essential food elements we can expect her to give birth to a child who will at some time show evidence of this deficiency.

As an illustration of this statement let us consider the teeth. Dr. Carl Betts of Rome, was the first dentist in this section of the state to advocate prenatal care of the teeth. He has given this subject very close attention for the past few years and I am indebted to him for his suggestions during the preparation of this paper. Dr. Betts in-

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forms me that Dr. Alfred C. Fones, of Connecticut, is one of the leading authorities in the world in dental research. With your permission I will quote Dr. Fones. "In the formation of the human embryo the cells must get their building material from the blood of the mother, and the mother's blood must obtain the sixteen life elements from the food she eats." Dr. Fones also says "Imperfect tooth structure does not occur as a single defect but that it is the index to the structure of the other tissues and organs in the body." (Fones, "Prenatal Diet," J. A. D. S., Nov. 1923). The crowns of deciduous teeth are formed when the baby is born and the cusps of the six year molars are in the process of formation. We see from this statement that not only the temporary teeth but the permanent teeth as well are affected by prenatal diet, and the causes of faulty tooth structure bring about definite changes in other organs. It is therefore apparent that more attention should be given to the diet of the expectant mother so that the foetus may grow and develop as nearly normally as its individual heredity will permit.

There is one other subject which I would like to emphasize before proceeding to the post-natal care. Every expectant mother should have a Wasserman blood test made. This should be done at the time of the first consultation, and in case of positive findings she should be treated just as vigorously as though no pregnancy existed. This impresses me as being the only rational way in which we can effectively suppress hereditary syphilis. There are other factors which influence foetal development but we haven't time to consider them today.

Let us now take up the post-natal care. It has been said that the prospects of physiological development depend upon heredity, food, and environment. As I have said before, I will spare you a discussion of heredity. It undoubtedly plays an important part in the growth and development of the infant, but many defects in children have been blamed upon heredity which were in reality due to improper prenatal care and

improper hygienic care of the infant. The assistance we render the mother in maintaining a normal physiologic balance during pregnancy will to that extent improve the physical prospects of the infant.

The greatest factor in infancy is feeding. In breast milk nature has wisely provided us with the ideal infant food, and in spite of all our science, formulae, and patent infant foods it still remains supreme. It is not only the best food but confers immunity to many diseases. The mortality rate being five times as high in the artificially fed as in the breast fed. If we wish to conserve infant life we must maintain material feeding. Prolonged nursing, however, is not to be recommended. Ordinarily the infant should begin to have simple cereals, broths, etc., about the eighth month and breast feeding should be discontinued at the age of one year. This outside assistance should be given regardless of weather conditions or season of the year. During the mid-summer months it is wise to restrict the quality of cereals and other foods but they should not be withheld entirely.

Unfortunately many obstacles present themselves, interfering with maternal feeding, and frequently weaning is necessary. This should never be done unless there is an absolute indication. If there is the slightest doubt in your mind the child should have the benefit of it. I have frequently seen children deprived of breast milk because it apparently did not agree. In many of these cases the trouble was due to some emotional disturbance of the mother, a high fat content of the milk, or some trouble with the child such as pylorospasm. The two former conditions being easily corrected and in the latter breast milk agreed quite as well as any other food.

I shall not attempt a discussion of artificial feeding, but when weaning is a necessity we are confronted with the problem of furnishing a substitute for mother's milk. The most suitable and best available is fresh cow's milk, properly modified so as to approximate the breast milk. A great deal of propaganda has been carried on by va-

rious manufacturing concerns exploiting the value of certain baby foods, and certain condensed and dried milks. The object being, of course, to increase the demand for their respective product. If the same amount of money could be spent upon propaganda directed toward increasing and maintaining material nursing a great step forward could be made in the conservation of human life.

As a substitute feeding for a few days there is no objection to the use of any of these products, but as a steady diet I can see no more reason for prescribing canned food for a baby than for an adult. Very few of you would insist upon your patients eating canned vegetables if they could be obtained from the garden, and I feel sure you would not direct a diet of cold storage eggs if they could be obtained fresh every day. Then, why, may I ask should the baby be condemned to live from a can? Holt, and others, have shown that of the 50,000 children who die annually from acute intestinal diseases a vast majority were fed from a can; proving beyond question that these foods contain some deleterious substance or else do not contain some essential food element.

The environmental factors which influence the development of the child depend largely upon the education and financial circumstances of the parents. The mental and physical plasticity of the child makes him particularly susceptible to the effects of the circumstances and conditions with which he is intimately associated. The educational problem has been undertaken by the State Board of Health, we can each contribute our share by giving them our earnest cooperation. Unfortunately the financial factor is an individual problem and lies outside the sphere of medical effort.

Many phases of infant care have been omitted, but if I have impressed upon you the importance (1st) of prenatal diet as a contributing factor to the formation of the foetus, and, (2nd) of maternal nursing as a vital element in the life of the infant, then I shall feel amply rewarded for my labor.

SURGICAL AND GENERAL DIAGNOSIS*

J. Turner McCall, M. D.

Rome, Ga.

Gentlemen of the Seventh District Medical Society:

Not being an orator I will not eulogize upon the past, present or future greatness of this Society. I want to talk to you on a subject which causes the Medical profession to suffer the most, because it lacks most, this subject through deficiency in which we have lost more people's confidence than through any other, namely, diagnosis.

People do not expect us to cure them of all their ills, because they all expect to die sooner or later. When they appeal to us for aid we are expected to devote sufficient time, skill, and care to arrive at a correct diagnosis of their condition, and if we do that, our treatment can scarcely be faulty. Success rests entirely in arriving at a diagnosis. There are fairly clean cut and accurate lines of treatment laid down in text books, with the exception of some individual cases, text books and common sense takes care pretty well of that phase of work. The diagnosis, however, must be all yours. Your office should be adequately equipped with present day apparatus for diagnosis. History blanks, which will enable you to follow a routine in making examination, and enable you to make more careful examination, at the same time giving you a permanent record of your patient. You should have hospital or laboratory connections so that you can avail yourself of the X-ray and laboratory work necessary. I do not feel that patients should be caused needless expense, neither should we rely solely on the X-ray or laboratory examinations, but use these devices which science has given us for the benefit of our patients.

The enormous percentage of error represents largely the indifference of the diagnostician and his indolence—not his incapacity. There is no profession which requires such continuous, strenuous and never ending labor as practicing medicine. The

*President's annual address delivered to the Seventh Congressional District Medical Society at Cedartown, on April 4th, 1923.

important advances keep coming so fast and in such numbers that unless one is alert and studying every minute, it is but a short time before he drops into the past tense, so far as medical knowledge is concerned.

The physician practicing internal medicine as a specialty, who fails to make a thorough examination cannot make a correct diagnosis. Such an internist is just as great a menace to the patient from a life-saving standpoint as is the surgeon who does careless work, it is not so noticeable, perhaps, in the interest, and the patient's death is not so flaunted in his face, as it is after the surgeon has performed a laparotomy and the crepe is on the patient's door because of the fatal hemorrhage on the table; but the number of lives lost by failure to diagnose and by procrastination in "working-up" the case properly is enormously greater—thousand per cent greater than deaths due to incompetent surgical acts. I refer to the doctor who sees a case of carcinoma of the breast when it is a small nodule in the breast. The practitioner who sees the epithelioma on the lip when it is a small sore. The physician who sees his appendicitis case in the first colic; his case of intestinal obstruction when the patient is having his first emesis. The internist who finds his patient suffering from an acute virulent infection and does not arrive at a diagnosis, then and there does not possess sufficient mental forces to demand prompt action, sacrifices enormously more lives than does the surgeon. Every doctor of mature experience recognizes the veracity of that statement.

How many cases of epithelioma of the lip come to the surgeon within the first six months of the appearance of the lesion, not 5 per cent—not one in twenty—think of it! Such a cancer is flaunted in the face of the doctor, it is flaunted in the face of the patient and his people, and still procrastination is the order of the day, until the glands of the neck become involved, and when the glands have become involved the patient has 76 per cent chance for a cancer death, even if operated carefully and thoughtfully, for lesion which was originally so small and

so easily removed that it would have been almost like a cherry to take it out, and 76 per cent of these people must die because of this neglect.

The positiveness of your diagnosis also is an important factor to you and your patient. After you have made your diagnosis and proved it up as you would a problem in mathematics. Then take a positive stand as to what should be done and stick to it.

THE TREATMENT OF ECLAMPSIA*

C. Van Wood, M. D.,
Cedartown, Ga.

Perhaps the most distressing spectacle to come into a doctor's life is the eclamptic convulsion or those signs and symptoms leading up to the eclamptic state. Given a patient, usually a primipara, whose condition has been in every way satisfactory, gradually begins to exhibit a progressive rise in B. P. which in my experience is the most valuable promonitory sign of impending disaster, and which in spite of all our efforts become more aggravated day by day, till a hurried call over the phone tells us that the inevitable has happened and that our patient is in the throes of an eclamptic convulsion and immediately we are face to face with a situation that will call for our best judgment and will tax to the utmost the most skillful and experienced men in our ranks. In this short paper I shall not attempt to go into a lengthy discussion of the treatment of eclampsia, but shall simply give you a synopsis of the manner by which we in Cedartown try to handle these cases that come all too frequently.

As we see it, we have three conditions presenting themselves:

1st. Immediate relief of eclamptic seizure, which we accomplish by chloroform, and hypo of veratrum viride, 20 drops, repeated at frequent intervals till we reduce the patient's pulse rate to at least 60 per minute. We also give chloral hydrate per rectum if jactation is very severe and do not resort to morphia unless absolutely compelled to do so. Naturally it is our duty

*Read before the Seventh District Medical Society at Rome, Sept. 27, 1924.

at this time to prevent our patient doing herself injury. She is carefully watched and something placed between her teeth to prevent chewing of the tongue, etc., all of which leads us up to indication No. 2. The rapid emptying of the uterus which we carry out as soon as possible. I am aware of the fact that this procedure should always be regarded as a major operation and we never allow this view to escape from our minds, but at the same time, experience has proven to us that the earliest possible time we can deliver the child, the more certain we are to save both mother and child and also the less liable the mother to infection. Our mode of delivery is, if conditions are ideal, to do a manual dilatation of cervix and delivery by version or forceps, if there is a hard, long rigid oss, we use metal dilators, rupturing the waters, then doing manual dialation, or if we feel that we are reasonably safe, we gradually dilate by the use of Barnes or Voorhees bags, then accomplish delivery by version or forceps. We realize the danger of tears, sometimes quite extensive, but we feel that we are justified in these extreme measures as our results have proven to us that we save more lives by meeting extreme conditions by extreme measures than by the expectant treatment.

3rd. As soon as delivery is accomplished, we bend all our efforts toward elimination not forgetting to carefully watch the weakened, exhausted nervous state of our patient. She is placed in hot packs and is encouraged to drink large quantities of water, the flagging heart is stimulated, salines are given till full purgation is produced, and absolute quiet enjoined. This last we regard as very essential.

I realize that the above is a very incomplete resume of the entire history of treatment of eclampsia but I trust that it may bring out some discussion that will be of benefit to all of us.

SOME REMARKS ON CHROMOCYSTOSCOPY

F. C. Nesbit, M. D.,
Atlanta, Ga.

This short essay is intended to present a very simple modification of the already well-known procedure of chromocystoscopy.

Many years ago, chromocystoscopy was worked out by Volcker and Joseph, and the agent used was indigo carmine. A few years ago Rountree and Geraghty introduced the use of phenol-sulphone-phthalein as a functional test. Indigo carmine's usefulness is limited in locating the ureteral orifices, and not in the time of appearance of the dye, as it is ejected from the ureteral orifices. Heretofore phthalein has been used as follows: 1 c. c. of the dye is given intravenously, and within three to eight minutes it is supposed to appear in the bladder from each kidney, in case the kidneys are functioning normally. Also, the urine may be collected from the bladder in total functional test, or from each kidney separately in differential test; and, by adding a few drops of a fifteen per cent solution of sodium hydroxide, the chemical change of the phthalein produces a pink color, and the functioning ability of each kidney is estimated by the amount of phthalein excreted. The per cent of phthalein excreted is estimated by the use of Dunning's colorimeter. Phthalein does not change color until the alkali is added, and therefore does not interfere with chemical, microscopical or physical qualities of the urine.

Indigo carmine is given intramuscularly, and is supposed to appear in the normally functioning kidney urine within eight minutes. It is detected by the appearance of the blue color in the urine, while its usefulness is limited to the locating of the ureteral orifices, and also in ascertaining the amount of functioning of the kidneys. The tardiness in appearance of the blue color is in ratio to the amount of renal pathology present. The objections to indigo carmine are due to the fact that the intensive blue color of the urine interferes with chemical and microscopical examination, and in cystoscopy, the bladder is soon invisible, due

to the high color of the indigo carmine in the bladder fluid. In the modification suggested, the objectionable features are eliminated, and I feel under certain conditions it is indispensable, especially in those few cases where it is impossible to locate the ureteral orifices on account of some form of obstructive pathology; as marked cystitis, edema, tumor, trabeculations, abnormally-shaped bladder, etc.; also when it is desirable to catheterize the ureters and make a complete examination. With the methods heretofore in use, it was occasionally impossible to accomplish all this, at least at one sitting.

The technique of this modification is accomplished by distending the bladder with a four per cent solution of sodium bicarbonate, and one c. c. phthalein is given intravenously, and the location where the ureteral orifices are supposed to be are carefully watched for the spurt of pink urine, for when the phthalein is ejected from the ureteral orifices into the alkaline bladder fluid, the color is immediately changed to a pink spurt, which soon loses its color as it penetrates further and further into the large volume of bladder fluid. The point on the bladder wall where the colored fluid is seen to emerge from is the ureteral orifice, and the ureteral catheter is merely passed into the spurt of pink fluid, and thereby the ureter is entered. The subsequent procedure of the operation is continued as in the usual case, and a complete urological examination may be made.

Without the modification suggested, in many cases it is impossible to make a complete record, as the ureteral orifices cannot be located. I have been using this very simple modification for the past two years, and it has been responsible for success in several cases in which, without its aid, I would have failed to complete a satisfactory examination.

PROSTATITIS

Young C. Lott, M. D.
Albany, Ga.

In non-surgical prostatitis we recognize two types. A. CLINICALLY. 1. Those

with pain, 2. Those without pain. B. PATHOLOGICALLY. 1st. Those of the glandular form, 2nd. Those of the connective tissue forms.

At times the prostate may have an apparently normal feel, and yet upon examination of the secretion under a microscope we find pus cells.

Causes: Any condition that brings about a prolonged congestion of the prostatic plexus such as sexual excess, masturbation, coitus, interruptus, drastic purgatives, trauma or urinary irritants, will produce a fertile field for infection. Of the germs causing prostatitis, the gonococcus is by far the most frequent and yet seldom do we find it or any other bacteria present in the prostatitic or seminal vesicular secretion.

Symptoms

1. Frequency of urination, which may be every ten minutes, either nocturnal, diurnal or both.
2. Hesitancy in onset.
3. Feeble stream and straining at urination.
4. Constipation.
5. Turbidity of first and second urines.
6. Dribbling, or blood and pain at the end of urination, which may be due more frequently to a posterior urethral involvement.
7. Tenesmus.
8. Pain, which is usually in the perineum and varies from a dull ache to a sharp pain. At times it may be in the rectum, suprapubic over the bladder, in the sacral and lower lumbar region or in the penis or testicles. In seminal vesiculitis the pain is above Poupart's ligament.
9. Retention of urine.
10. Constitutional symptoms such as chill, fever, anorexia, cloudiness of eye lids, etc.

Aids in Diagnosis

1. Palpation through the rectum.
2. Microscopic examination.
3. Catheter examination.
4. Cystoscopic examination.

A normal prostate is about the size of two

thumbs together and is fixed. The consistence being like the muscle in the thenar eminence. The surface is smooth and the median furrow should be felt. In palpating we should be able to determine the size, consistence, etc. When too hard, it generally means a chronic inflammation whereas a soft and boggy condition means a chronic congestion. Absence of median furrow means a former acute parenchymatous infection. A nodule usually means an abscess due to Tubercle Bacilli or other germs and is localized whereas a depression means an old abscess with loss of tissue.

The seminal vesicles are normally not palpable. We find in the chronic congestive type, a large distended soft sausage like mass with thin hypersecretive walls, whereas in the chronic inflammatory type the walls are thick and indurated. Both conditions should be massaged very lightly.

By introducing a urethral catheter we can determine the permeability of the canal, the length of the urethra, the amount of residual urine, bladder capacity and functional ability. Usually the prostate is not malignant when a sound can be palpated in the urethra.

In palpating the follicular type in which ducts alone are involved there may be no more symptoms than the heaviness in the perineum. The prostate may not be tender or very slightly enlarged, no fever, constitutional symptoms, etc., are present. Whereas in the parenchymatous type we find swelling of the prostate, pronounced pain in the rectum and perineum, constipation, retention of urine, difficulty in starting or a small stream and constitutional symptoms. The prostate is usually extremely large, tender with multiple small abscesses, which may be throughout or in one part of the gland and generally rupture into the posterior urethra. During this stage it is unwise to palpate the prostate and an operation should be performed only when the abscess fluctuates. A sudden retention of urine nearly always means an involvement of the prostate or seminal vesicles.

By microscopic examination, when we find less than 5 leukocytes to the field the

prostate is considered normal and if more than 5 or when the leukocytes are clumped together then we know we are dealing with pus.

By a cystoscopic examination, we can determine the degree of cystitis, presence of any calculi, neoplasms, diverticuli, post prostatic pouch, malignancy or enlargement of 3rd lobe (the ball in valve type) and the kidney function.

Treatment

Depends upon the stage and condition. In the acute stage, rest in bed, milk or liquid diet, forced water, hot Seitz baths, hot water bottle to perineum and stop injections, irrigations or any instrumentations. A mild urinary sedative such as a potassium acetate, bicarbonate, and citrate of each dram 3, and TR. hyoseyamus drams 4 and water Q. S. ounces 4. A dram every four hours in a glass of water or salol gr X three times daily. A mild purgative as a saline laxative or castor oil. Strong purgatives like calomel aggravate the condition by irrigating and increasing the congestion of the prostatic plexus. A rectal suppository three times daily can be used. It is unwise to feel the prostate in this stage and when the acute stage begins to subside, or when much pus is present, then vaccines are beneficial. I frequently use Pyo-Atoxin capsules (Hurley) in the acute stages with good results. In 2 or 3 days after acuteness begins to subside, then hot rectal irrigations every night, a dram of salt with two quarts of water 105-120° Fahrenheit each time, gradually increasing the heat are advocated. The bag of water should not be higher than the patient's head while sitting. In a subacute condition the bladder may be irrigated with boric acid solution and then followed with 1 per cent Mercurochrome or 10 per cent Argyrol in the posterior urethra, or irrigations of silver nitrate 1-16000 or deep instillations of silver nitrate 1-500 once or twice weekly. The silver nitrate and mercurochrome should not be used during the same treatment, because of increased irritation. At all times whether the condition be acute, subacute or chronic, the testicles should be well supported and

it is best to have the fixed point in midline and central point of the perineum with no tension whatsoever on the cord or pressure on the testicles.

We should not massage acute prostatitis, acute vesiculitis or when nodules or complications are present, but leave the acute condition for 2 to 3 weeks, then use very light pressure in massaging lest an epididymitis or an acute exacerbation develops. Massage of the prostate from the outer border towards the median furrow and strip the vesicles every 3 to 10 days, usually every 5 days on a full bladder. Strip them from the tip with a worm like motion down and do not use as much pressure as on a prostate. In massaging I generally fill bladder with 1-10,000 silver nitrate or permanganate of potash or stronger solution, depending on the condition and compare the fluids. 1st, 2nd and 3rd glasses in reference to color, shreds, sediments, etc. Pus changes the permanganate color in 1st glass and the semen floats on top in a clump while the shreds and debris settle to the bottom.

Prognosis

The questions we have heard so often "Doctor when will I get well?," in reply may I say that the aphorism is as true today as it was when uttered more than a generation ago by Ricord, viz: "A Gonorrhea begins and God alone knows when it will end." The second question, "Doctor, can I be cured?," may I quote from Keyes, viz: "A disease that causes fully 50 per cent of the involuntarily sterile or one child sterile marriages, that destroys the power of procreation in man as well as woman is indeed a peril to the race." So the fundamental question before us today is can a gonorrheal prostatitis be permanently cured without any ill effect or sequellae in man, woman or offspring? It seems to me in a vast majority of cases with active, persistent, and scientific treatment from the very beginning of infection, and with the full co-operation of the patient it can be cured, for we see that patients once afflicted and treated have later united in wedlock resulting in happiness, healthy parents and young pink robust citizens of the future.

SARCOMA OF THE SPLEEN

B. T. Beasley, M. D.,

Atlanta

Tumors of the spleen, either benign or malignant, primary or secondary, are of rare occurrence compared with tumors in the other organs of the body. Of the benign tumors, fibroma, lymphangioma and angioma cavernosum have been described only in isolated instances.

Malignant tumors of the spleen are so infrequent as primary growths that some have doubted their existence. The spleen has, also, immunity against metastasis of the malignant tumors.

Weichelbaum reported the first positive case of primary sarcoma of the spleen in 1881. Since then others have been reported so that Jepson and Albert were able to collect from various sources, thirty-two instances including one of their own. Of these thirty-two, some of which are of doubtful diagnosis, twelve were subjected to operation, eleven of these had splenectomy, while one had an enucleation of the growth. Three out of the eleven died. Of the remaining eight, three died of recurrence, one of doubtful cause, and of the remaining four, two were living six and one-half years after operation, while a sufficient length of time had not elapsed to give a positive opinion about the other two cases. Spleen enlargement, pain, and a blood examination give little assistance in the diagnosis. In the absence of a secondary involvement and other organs splenectomy is justifiable.

Case Report

Case history 11745, baby Lowry, girl, one year of age.

History: P. I. Began, two weeks before history was taken, with indigestion, vomiting and diarrhoea. Was not fretful. Did not seem to be in any pain. The stools were green and contained no blood. Past history unimportant.

Physical Examination

On first examination, nothing of importance was observed other than baby appeared weak and slightly anaemic. Upon examination twenty-four hours later a

small nodular mass one inch below the ensiform was observed. Ten days later another examination was made, the baby having been in the hands of another doctor during this time, the mass was found to be much larger and the baby was more emaciated and showed greater weakness. On general examination the baby was found to be practically normal. Patient was admitted to hospital July 17th, 1922. Temperature 100, pulse 128, Resp. 28. Temperature remained around 100 until the 22nd and then it was 103. Became weaker and more emaciated all the while. The mass also grew in size. On the morning of the 22nd after numerous consultations and numerous provisional diagnoses were made she was taken to the operating room for exploratory laparotomy. Under local and gas oxygen anaesthesia an incision three inches in length, to the left of the median line, was made and the tumor mass immediately came into the field of operation. The tumor mass was aspirated and a few c. c. of fluid were withdrawn. The mass was inspected and found to be a part of the spleen. It was very friable and easily torn and looked very much like a large blood clot. A section was taken and wound closed. Patient died seven hours later.

Findings

Urine, negative at all examinations.

The aspirated fluid examined at Doctor Bunce's laboratory showed only a few myelocytes.

Blood examination: Wassermann was negative. Blood count showed 2,700,000 reds, 28,400 leukocytes 18 per cent small lymphocytes and 8 per cent large mononuclears, 74 per cent polynuclear, no myelocytes.

X-ray Examination: Doctor Clarke gave the following report:

"The small bowel and colon appear pushed into the right abdomen. The stomach is displaced to the right. No foreign bodies found."

Tissue Examination: Report from Doctor Bunce on the section of tissue removed: "Large round cell sarcoma."

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PRESIDENT'S ANNUAL ADDRESS*

E. H. Richardson, M. D.
 Cedartown, Ga.

I assure you it is no empty platitude for me to aver that I very sensibly appreciate the substantial evidence of your confidence in making me the presiding officer of your honorable body.

I have been a member of the Medical Association of Georgia since 1878; and for twenty-five years I rarely missed attending a meeting of its annual sessions.

Since that date I have been a member of the American Medical Association; and I have attended some of its annual sessions. At Birmingham, England, in 1890, I attended the meeting of the British Medical Association convened in that city. And I declare to you in all sincerity that this Society, accomplishes more work and better work in one day than I have ever observed in any other medical body in the same length of time at home or abroad.

I am sure you will cordially concur with me in the declaration that the splendid achievements of this Society are largely due to the indefatigable energy, intelligence and zeal of your accomplished and suave Secretary-Treasurer, Dr. M. M. McCord.

In administrative and executive ability my immediate predecessor, Dr. J. T. McCall, has no superior and few equals. In the galaxy of Georgia's renowned surgeons his brilliant attainments have placed his name high upon the roster of America's greatest

*Read before the 7th District Medical Society at Dalton, April 2, 1924.

surgeons. I bid him Godspeed in his career to fortune and fame.

Upon this occasion I shall undertake to show some of the original work contributed by Georgia doctors to medical science.

Creative genius is not a common faculty of the human mind. There is no open door to Nature's secrets; and the catalogue of workers in her lapidary who have discovered new truths is not a long one.

Our own beloved Dr. Robert Battey, genius, enthusiast in the sciences, scholar and pioneer, plunged his scalpel in unplowed fields, and lo! his name is carved in undying letters of gold high upon glory's shaft!

The discovery of the Excito-Secretory System of Nerves, Campbell's method of Artificial Respiration, and Campbell's method of adjusting displacements of the uterus, by the genu-pectoral posture, are discoveries of Dr. Henry F. Campbell, of Augusta, Georgia.

Dr. L. D. Ford, of Augusta, Georgia, was the first to discover the abortive treatment of intermittent and remittent malarial fevers by the use of large doses of quinine, published in the Southern Medical and Surgical Journal, November, 1836.

Measured by the mitigation of human suffering and the saving of human life, the discovery of surgical anesthesia by Dr. Crawford W. Long in March, 1842, ranks highest in the field of human endeavor, places his name high upon the roster of the world's greatest benefactors and philanthropists.

In our own profession we have a patriotic citizen and a distinguished physician of Georgia, Dr. L. G. Hardman, of Commerce, who at his own expense has erected on the spot where Dr. Long did his first operation under sulphuric ether at Jefferson, Jackson County, Georgia, a splendid marble monument to perpetuate the name and fame of Crawford W. Long.

This beautiful statue was unveiled by the Medical Association of Georgia at its sixty-first session at Jefferson. This splendid shaft, kissing the skies of heaven, will be a benediction and inspiration to coming generations proclaiming the glory of human

achievement for the amelioration of human suffering.

It is gratifying to know that in the near future a marble or bronze statue of Crawford W. Long, will be placed in the Statuary Hall and fill a niche in our National Capital at Washington, perpetuating the name of the first discoverer of sulphuric ether as an anesthetic for the relief of pain in surgery.

The first surgeon to suture a wounded intestine was done by Dr. Lewis A. Dugas, of Augusta, Georgia, published by him in the Southern Medical and Surgical Journal in 1852.

There were three penetrating wounds of the small intestine, one wound almost severing the gut. Dr. Dugas closed the three wounds of the intestine with Glover's stitch, using the smallest size violin string for suture. The abdomen was closed with large size silk thread. A compress and an adhesive plaster covering same completed the operation. Recovery was rapid.

Dr. Dugas, in December, 1875, begun teaching his classes in the Medical Department of the University of Georgia the necessity of opening the abdomen in all penetrating wounds of the abdomen for the purpose of checking hemorrhage and closing by suture all wounds of the abdominal viscera.

At the World's International Medical Congress at Philadelphia, in 1876, Dr. Dugas presented an elaborate paper to that body, urging the necessity of immediate surgical interference in all penetrating wounds of the abdomen.

Dugas' method of differentiating between fractures and dislocations of the head of the humerus is a classic, and for many years has been taught in all medical text books on surgery.

Among the curiosities of medical literature is a record in the Southern Medical and Surgical Journal of January, 1856, of three operations performed by Dr. Dugas in the mesmeric state without pain. One of the cases was the amputation of the breast and axillary glands.

In 1852 Dr. Dugas, in the Southern Medical and Surgical Journal enunciated the cure of pulmonary tuberculosis with cavities of

the lungs by rest and improvement of nutrition.

Dr. Dugas was the first surgeon to use phenol in the form of tar water for wound infection in the treatment of hospital gangrene, during the Civil War of America.

The colossal wizardry of Pasteur conquered disease and revolutionized vital statistics in the human race. In December, 1822, Louis Pasteur was born in a country province of France. He was the descendent of plain country parents who sacrificed everything they had to give him a good education. He became an earnest student of chemistry. From his studies of fermentation and putrefaction (1860) he observed that heating destroyed fermentation, and here he formed the postulate of the existence of micro-organisms, and lo! bacteriology was born; and the basic principle that micro-organism existing everywhere were the causative factors of all infectious and contagious diseases was established.

In 1874 Lister in a letter to Pasteur said: "Allow me to take this opportunity to tender you my most cordial thanks for having, by your brilliant researches demonstrated to me the truth of the germ theory of putrefaction, and thus furnished me with the principles upon which alone the antiseptic system can be carried out." Pasteur's achievements in bacteriology is the outstanding epochal event in the evolution of medicine.

Modern statistics teaches us that during the past sixty years ten years have been added to the longevity of the human race in the United States; and during the past quarter of a century greater advances have been made in medicine, surgery, and sanitation than has occurred since the dawn of history.

During the World War Pasteur's teachings in the treatment of wounds and in the prevention of diseases saved millions of lives. Pasteur furnished to the world the basis of all that has been accomplished in preventive medicine.

More than half a century ago I entered the ranks of the medical profession in Geor-

gia. A comparison of the status of medicine then and now is to compare the "charred beetle in his hole" with the "full winged eagle in his flight" to the stars, bathing his wings in the effulgent blaze of the sun at noontime. In war and in peace, governments and nations have recognized the economic importance of the medical profession.

Upon the battlefield, amid the roar of cannonade and musketry, when earth and seas and skies tremble, where chaos and death reign supreme, and the shrieks of the dying cry to heaven for succor, the heroic surgeon is there to save life and limb, or assuage and soothe the sufferings of the dying! But in civil life the beneficence accruing from the medical profession flows in such constant streams that like the oxygen of the air we breathe, 'tis hardly human to accord adequate recognition to the every day doctor.

Long service in the great profession of medicine, and association with the grand men in its ranks, has flowered into the profoundest reverence and love that will endure.

In the life of the young man there are moments when he may magnify disappointments from mole hills into mountains, believing his skies are dark, when a rainbow spans his horizon with its splendors! Fancy that "It is raining rain" when in fact it is only "raining daffodils and roses down." To the young man I bring only felicitations and congratulations upon his entry into a noble profession during its grandest era. Gird your loins with that beatific trinity of virile virtues, courage and faith and love, with truth and enlightenment for your goal, and you have builded your hopes upon the sublime synthesis whose architect is God and you will sing peans of triumph over all obstacles.

My parting admonition to the young men of the profession is: With faith in God and yourselves, let your slogan be:

"Our doubts are traitors

And make us doubt

The good we oft might win,

By fearing to attempt."

And in your trials remember:

“There are loyal hearts, there are spirits brave,
There are souls that are pure and true;
Then give to the world the best you have,
And the best will come back to you.”

TYPHOID IN CHILDREN*

L. F. Lanier, M. D.
Rocky Ford, Ga.

At this season of the year it is fitting that we get together and discuss typhoid fever. We have all heard discussed in our College days the etiology, symptomatology, pathology, diagnosis, and treatment of this disease; so now, as full fledged experienced medical men we are much concerned with the symptoms, diagnosis and treatment.

It is my desire to talk first of typhoid in children in as much as I am especially interested in Pediatrics. Of course, in a country practice we are limited in our clinical experience with enteric fever in children and with adults as well, at least, in the Rocky Ford District.

Griffith says about four per cent of all typhoid fever occurs in the infant and child—I believe that is the record of all the best men, and I think I can say that is about my experience in my limited practice.

Enteric fever, as a rule, does not begin in the child as in the adult. The child is usually taken sick with nausea and vomiting, high fever of either an intermittent or remittent type for several days before it settles down to the regular typhoid routine. Your pulse as well as your fever will run high as if you had a malaria to deal with for several days—that has been Dr. Morse's experience of Harvard Medical School and that has been my experience.

Often Enteric fever is ushered in with a sore throat, cold, cough—symptoms simulating pneumonia, but on careful investigation—blood count, etc., you will have to dismiss all but the typhoid. Sometimes the pain over McBurney's point will be severe

enough to cause quite a bit of anxiety from the intelligent parents of the child and you will only be able to satisfy their fears by taking a blood count and finding it normal—examining the urine microscopically to eliminate pyelitis and the blood count to eliminate appendicitis. I have had just such experience in the last two years, and was happy to be able to make the necessary examination and in a few minutes after getting back to my office be able to render a negative to the parents.

There are few hemorrhages among children in typhoid, few of them come to autopsy, most of them get well. Oftentimes they become delirious but not so marked and troublesome as in the adult.

Of course, the wide awake pediatrician will examine the ears, the mouth, the parotid glands, in this disease just like any other disease in the infant and child. Every practitioner should carry with him a hand battery otoscope, and a blood counting apparatus litmus paper, and glass microscope slides in his grip, and use them. I would be absolutely lost without mine—and in an infant, it is not surprising to see the blood count as much as 12 to 14 thousand. I mean an infant, not the six or eight or ten year old child. It is true that the Widal will fool you sometimes for a week or more, but I prefer to make the Bass test or have the State Board Laboratory to make a test on all suspected cases. First to confirm the clinical diagnosis, and complete the record, second to keep down the talk of the busy gossip women and sometimes men in the neighborhood. You in the city are not bothered in that way quite as much as we are, but it is no unusual thing for all the wiseacres in a country neighborhood to get around and say this child has this or has that or has not this or that.

Now, as to feeding the infants and children in typhoid. The infant has to have breast milk. The older child can be fed on reinforced milk diet, buttermilk, soft toast, some thoroughly done Irish potatoes, blanc-mange, ice cream, malted milk, orange juice, cream of tomato soup. Should the child be toxic it is best to leave off the milk diet

*Read before the First District Medical Society, Savannah, Ga., July 15-16, 1924.

and try the carbohydrate diet for a while until the toxicity and tympany become better. In fact, you should always try out the stool with your litmus paper and see whether you have a proteid stool or a carbohydrate and govern yourself accordingly in the diet. If your proteids are kicking up and causing gas, etc., confine yourself for a time to your carbohydrates and vice versa.

I believe your feeding of the infant and child should be very similar to that of Infectious Diarrhoea. If you will do that you will get along for the most part very nicely and your charge will not come out from under the typhoid with much loss of weight or strength.

As to Complications: Sometimes you will find Enteric Fever complicated with Purpura Hemorrhagica. You will find slightly raised spots from the size of a pea to a half dollar, quite painless on the chest, face or limbs. You will find with this—hemorrhages from mucus membranes in the form of epistaxis, all of this accompanied with extreme prostration. Your line of treatment for same would be horse-serum 10 cc intramuscularly, mother's blood 10 cc, calcium chloride by mouth and half cc milk injections. In such condition you will find a leucocytosis of ten or as much as 15,000 instead of the usual leucopenia.

Sometimes you will have an Otitis Media which you will find if you will look for it. Often in the South you will find Malaria and Typhoid in the same child. Osteomyelitis, Jaundice, Nephritis, and Pyelitis are occasionally found and we should be on the lookout for them.

Treatment: Leucocyte sera has been used at times with some benefit. I am a great user of Chlorine Water, Iodine Emulsion, Protoide of Mercury, Mineral Oil, Caffeine Sodium Benzoate (in preference to Strychnine); and I believe we should use both in children and adults more of the Acidophilus Culture Milk than we have done in the past. I have been trying out Acidophilus Milk in my infectious diarrhoeas

and I like it when properly prepared by an intelligent housewife. I have said nothing of water and baths, but we all know the use of WATER and a plenty of it.

In closing this paper it is difficult for me to do so without calling your attention to a few clinical cases more particular in the adult.

Case No. 1.—Mrs. M. Lady, five feet four inches high, normal weight, 130—no particular family history, or history of diseases in childhood, came down with typhoid fever for eight weeks,—usual amount of tympany, usual amount of high fever; fed on reinforced milk—that is four ounces of cream, four ounces of sugar milk, in quart of sweet milk together with buttermilk, malted milk, well done Irish potatoes, some soft toast, soft boiled egg. This diet about war times cost patient one dollar per day. Blood pressure stood at 120. Systolic on Caffeine Sodium Benzoate, in 48 hours after getting on Strychnine blood pressure went down to 112 and in 48 hours after changing back to Caffeine our blood pressure would get back to 120. This patient recovered through eight weeks without losing a pound of flesh or much strength.

Case No. 2.—W. A young negro man, age 25, brought to my office with two weeks of Walking Typhoid. Nervous System Involved; picking at ink stand in office or anything else he could lay his hands on—fever and pulse typical typhoid but not very high—patient seemingly very toxic. Diagnosis of Typhoid made—patient sent home—four days State Board Laboratory return positive Widal—patient grew worse with his meningeal symptoms and died tenth day after observation. In this case no spinal puncture was made after Widal came back positive. No consultation called as we did not feel the need of any. Patient was extremely toxic all the way through and spinal punctures would not have saved him, while they may have relieved the meninges, while they may have relieved the meningeal symptoms somewhat.

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

DOES THE GEORGIA DOCTOR NEED A BROKER TO SELL HIS SERVICES TO THE PUBLIC?

The medical profession is confronted today with one of the most serious problems of the present decade¹. "Briefly, and in business parlance, the question is: Shall the medical profession vend its products directly to the consumer or shall it sell them to a middleman or third party?" This question has assumed increasing importance since the endorsement of periodic examinations of the apparently healthy by the American Medical Association at the San Francisco meeting. Commercial organizations and institutes have used this endorsement to urge the public to apply to them for these examinations.

"For these examinations, the company pays the physician a definite price and then sells the results of the examination to the individual examined at a much higher price. In other words, these companies acting as jobbers buy the physician's services at one price and sell them to the public at another. The question that should receive the most serious and earnest consideration of this House of Delegates are: Should the phy-

sician deal with the jobber, or should he sell his services directly to the consumer? and, What is going to be the ultimate effect on the independence and the welfare of the physician as a result of thus dealing through a jobber, or middleman?

"When a physician signs a contract with a commercial organization to make physical examinations of all persons sent to him by the organization for a price set by the organization, and allows that organization to make its own charge to the individuals examined for the services rendered by the physician, the physician is selling his independence to the jobber."

These institutions have further invaded the field of the practice of medicine by the examination of policy-holders in life insurance companies. One of them now claims to make such examinations of policy-holders in thirty-nine companies. They pay the examining physician whose skill and knowledge make the examination worth while \$2.50 but sell the result of the examination to the insurance company for \$5.00. Furthermore, they contract to make examinations of groups of employees for industrial organizations at so much per head sending examiners from the home office.

We are long suffering and loathe to take any stand which is not for the best interest of the public. But is such practice for the public's best interest? Some of them claim to be altruistic and carry the names of many of our most prominent citizens on their literature but how much has any one of them given for altruistic purposes in Georgia? Does any member of this Association know of a single instance? The local physician is best qualified to make examinations for the public. When he needs help in any particular field he is best qualified to know where to seek such help. We favor periodic examinations of both children and adults but believe that such should be made by the family physician and the records kept by him. He is, furthermore, the best judge as to just what and how much information should be given the person examined.

1. Supplementary Report of the Judicial Council, Proceedings of the House of Delegates of the A. M. A., Chicago, June 9-13, 1924, p. 22-24.

FROM THE SCIENTIFIC AMERICAN

The revolutionary Abrams technique for the diagnosis and treatment of disease which has swept the country is utterly without foundation in science.

Such is the verdict of the Scientific American Abrams Investigation Committee which for nearly a year has subjected the so-called electronic reactions of Abrams to a searching analysis. The practitioners of the Abrams method have declared it holds out a new hope for suffering humanity. Its enemies have dubbed it the greatest piece of Charlatanism in history. The movement has spread to all parts of the world and threatened to upset the entire theory of the medical profession.

There have been 44 different variations of the Abrams apparatus in this country alone. The Abrams method has had 3,500 practitioners; the other methods have each had a thousand more. The number of patients of all them has run into hundreds of thousands.

"The so-called electronic reactions of Abrams do not exist—at least objectively," declares the committee. "They are merely products of the Abrams practitioners' minds. These so-called reactions are without diagnostic value. And the Abrams oscilloclast, intended to restore the proper electronic conditions in the diseased or ailing body, is barren of real therapeutic value. The entire Adams electronic technique is not worthy of serious attention in any of its numerous variations. At best, it is all an illusion. At worst, it is a colossal fraud.

"This electronic development has caused a sad state of affairs in this world of ours. It has given rise to all sorts of occultism in medicine. It has been a renaissance of the black magic of medieval times. It has given free reign to idiotic ideas—ideas which would formerly have been laughed out of existence at their very start. Suffering humanity has been made so many lavish promises of late that it is a sad disillusion now to go back to our conservative orthodox medicine, which, after all, remains our mainstay.

"When the day arrives for the practical application of such serious research work,

we may be certain that it will have nothing in common with the passing electronic craze. In so far as concerns the apparatus employed, the methods of exploitation, or the qualifications of the men engaged in the work, it will be wholly without resemblance to the cults whose basic ideas and whose technique this Committee denounces."

Dr. Abrams died suddenly of pneumonia on January 13, in the midst of the "Scientific American" investigation. His death came on the eve of his scheduled appearance as the star witness in the trial of Dr. Mary Lecoque, an E. R. A. practitioner, at Jonesboro, Ark., charged with using the mails to defraud.

MEETING SOUTHERN SANATORIUM ASSOCIATION AND SOUTHERN TUBERCULOSIS CONFERENCE

There will be a meeting in Birmingham, Ala., of two public health groups, the Southern Sanatorium Association and the Southern Tuberculosis Conference on October 16th, 17th and 18th, beginning the night of the 16th.

All the meetings in these joint sessions will be held at the Tutwiler Hotel and not only members of these two organizations but all people interested in public health and physicians who are studying the diagnoses and treatment of tuberculosis will be welcome at all these conferences.

The tentative program deals with three phases:

1. How can volunteer agencies work most helpfully with constituted health authorities?
2. How can satisfactory health educational programs be developed in relation to the regular school curriculum.
3. Outstanding valuable methods of financing all kinds of programs to fight tuberculosis.
4. Problems of the Tuberculosis Sanatoriums.

District and County Societies

The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific

papers and discussions which the society shall consider worthy of publication.—Constitution and By-Laws, Chap. VII, Sec. 15.

1. Demmond, E. Carson, Savannah.
2. Wood, A. W., Albany.
3. Greer, Chas. A., Oglethorpe.
4. Blackmar, Francis B., Columbus.
5. Clay, Grady E., Atlanta.
6. Hawkins, T. I., Griffin.

7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Joiner, B. O., Tennesse.
11. Simmons, J. W., Brunswick.
12. Cheek, O. H., Dublin.

EIGHTH DISTRICT MEDICAL SOCIETY

A very interesting meeting was that of the Eighth District Medical Society which was held at the Washington Country Club, Washington, August 13, 1924. The complete program was as follows:

Morning Session

Invocation—Dr. J. A. Stapler, Penfield.

Address of Welcome—Mayor Wilheit.

Response to Address of Welcome—Dr. H. M. Fullilove, of Athens, and read by Dr. H. I. Reynolds, of Athens.

Address by Dr. H. Cabaniss, President of Eighth District Medical Association. Some of the interesting subjects brought out in Dr. Cabaniss Address were: Washington as one of the historical Associations; preventive medicine in regard to typhoid and diphtheria; public clinics as medical extension work; appointments to Board of Health and Board of Medical Examiners of men of high professional standing and acceptable to the Medical Association of Georgia.

Paper on Cancer Commission by Dr. O. D. Hall, of Atlanta, was discussed by Drs. McCurry, of Hartwell, and Carter, of Madison.

Paper on National Child Health Demonstration Bureau in Athens, by Dr. J. H. Carey, of Boston, Director of the Bureau in Athens.

Dr. Allen H. Bunce, Secretary of the Medical Association of Georgia, gave an address stressing the importance of organization, legal defense and professional responsibility of medical men.

A Barbecue Luncheon was given by the Washington Kiwanis Club from 2 to 3

P. M. The visiting physicians were welcomed and toasted by Hon. Claude Norman, President, Washington Kiwanis Club and Dr. Homer L. Grice, Pastor of the First Baptist Church of Washington.

Afternoon Session

Demonstration of Simplified Blood Transfusion Apparatus, by Dr. B. H. Clifton, Atlanta.

Vicarious Menstruation, by Dr. H. B. Stanley, of Covington.

Essentials in the Management of Diabetes, by Dr. W. E. McCurry, of Hartwell. Discussed by Drs. Bunce, McCurry and Reynolds.

Treatment of Diabetes Mellitus, by Dr. H. I. Reynolds, of Athens. Discussed by Drs. Bunce, McCurry and Reynolds.

A resolution of sympathy was read by Dr. W. E. McCurry to be sent to Dr. A. B. Patton, of Athens, in his recent illness and inability to attend the meeting at which he was posted for a paper.

Resolutions were passed giving appreciation of hospitality of Washington Country Club, Washington Kiwanis Club and Wilkes County Medical Society.

The following officers were elected for 1925: President—Dr. A. W. Simpson, Washington.

Vice-President—Dr. Harrold I. Reynolds, Athens.

Secretary-Treasurer—Dr. D. M. Carter, Madison.

The 1925 Session will be held at Athens the second Wednesday in August.

D. M. CARTER, M. D.
Secretary Eighth District
Medical Society.

FOURTH DISTRICT MEDICAL SOCIETY**LaGrange, Ga., August 14, 1924**

The meeting was called to order by the President, Dr. Mercer Blanchard. Mr. Herbert Quillian, Secretary of the Southeastern LaGrange Y. M. C. A., welcomed the members and guests on the part of the citizens of LaGrange. He then led in the singing of America.

Dr. Blanchard delivered a short address in which he spoke of the necessity of this organization.

Dr. E. C. Thrash said though hindered, he was still on his feet. In his address he spoke of the tendency of a man working alone to leave off the niceties of practice more and more each year. He never attends a medical meeting without bringing away new ideas. When the directory shows all the doctors of a locality to be members of the State Society the chances are that they are doing good work. Every doctor learns more about a subject, when he writes a paper on it, than he would have ever learned otherwise. He will be amply repaid if the paper is thrown away as soon as written. He will be doubly repaid if he reads it before a society and has it published.

Dr. J. B. Camp, of Carrollton, read a paper on "The Glands of Internal Secretion and Rheumatism." There are many conflicting views about rheumatism. Some claim it is due to digestive disturbance, others to imperfect mineral metabolism, still others to a bacteremia. There is some truth in all these ideas. The improvement following the use of vaccines proves that bacterial infection is more or less responsible. Dietetic and eliminative correction alone often establish a cure. A diet including more fresh vegetables and less meat is often beneficial.

There is a close relation between the glands of internal secretion and some of the pathognomonic symptoms of rheumatism. The elimination of toxins is controlled by these glands also the ability of the body to protect itself against infections. When there are recurrences of an attack of rheumatism where the former attack was con-

trolled by salicylates the effects of the endocrine glands should be considered. Organotherapy is only another help rather than a specific in rheumatism. In the type occurring in children, there is no deformity and the main symptoms affect the smaller joints. These cases readily respond to thyroid medication. However, all cases are benefitted.

In rheumatism there is a hypo-metabolism which is remedied by thyroid extract. Professor Slosse of Brussels was quoted as having said that the absence of thyroid extract reduces the nitrogen splitting power of the body. He found that the administration of thyroid extract favored the elimination of nitrogen. Since many rheumatics are in a state of hypothyroidism and general endocrine malfunction it is well to bear this in mind. In many rheumatics there is a low blood pressure.

Dr. Camp has found considerable advantage from the use of Adreno-spermin Compound, which is a combination of a small amount of thyroid, adrenalin and spermin. The adrenalin is given for its circulatory effect and the spermin in addition to being synergistic to adrenalin is a musculotonic. There is a tendency to acidosis and he uses two teaspoonfuls of citro-carbonate before meals for one month, then on alternate weeks.

The thymus gland seems to be related to rheumatism in some manner. A reduction in pain follows the administration of thymic extract. There is a softening of the bones following thymectomy in early life, which seems to prove that the thymus is related to the mineral metabolism.

For the general practitioner, the only way to tell which cases will respond to thyroid extract therapy is by actual trial.

Dr. Bunce has studied a group of cases of rheumatism which showed a hypothyroidism. Too little has been said of this type of case. Many men and women about forty years old with low blood pressure and chronic arthritis are suffering from hypothyroidism. If it is impossible for a physician to have a basal metabolism estimate he is certainly justified in trying thyroid

extract. He knew nothing about the other glands mentioned. In the administration of thyroid extract it is three or four days before we get any reaction and the effects last for about three weeks after the administration of thyroid extract has been discontinued. For this reason these cases should be watched rather carefully. Dr. Camp's subject covers a much neglected subject.

Dr. Barge: What is your minimum dose?

Dr. Bunce: Some cases will show toxic effects in a few days following the use of $\frac{1}{4}$ grain. Others can take 15 grains of desiccated thyroid a day.

Dr. Camp, closing discussion: In the other glands mentioned I get results and so feel that they are worth while.

Dr. Mercer Blanchard, of Columbus, read a paper on "Health Prevention as Practiced in the Columbus Public Schools."

Dr. Jim Thrash: The work carried out by Dr. Blanchard is the most intensive hook worm therapy ever carried out in the United States. I know of no such large group of school children in whom an examination was performed on every child. Rechecking the treatment was quite a job. A survey of the county schools was attempted but it was not so thorough. The North Highlands School which is in the center of the mill section gave 33 per cent positive cases. At this time there were many surface privies. These have now been eliminated. In the future our feces examination on all first grade children will be compulsory. The principal thing in this school work is the education of the children. The State Medical Society should insist upon hygiene and physiology being taught in every school in Georgia. That is the only way to fight quackery. The best plan is to center on one thing each year and fight it to a finish.

Dr. Park: What type of privy do you use?

Dr. Thrash: We use a box, can privy. The boxes cost \$1.50 and the cans \$1.10. One of these privies will accommodate five people. They are cleaned weekly by tank trucks. The trucks are emptied by driving

over a man hole anywhere in the city. We use no disinfectants. We believe that the coal-tar disinfectants are worth little, are expensive, and give a false sense of security. We use Dakin solution as a disinfectant. The free chlorine destroys the odor. Since using this we have found that our trucks are practically odorless. Before, the odor of these trucks was very disagreeable.

Dr. Blanchard, closing: In making the hookworm examinations we found many cases of infection with the taenia nana, or dwarf tape worm. This is supposed to come from rats. The carbon tetrachloride treatment was not very successful in these cases. Only 40 per cent were cured. Since doing this work I have started using the above remedy in all undernourished children who were found to be normal otherwise.

Dr. Clark, of LaGrange, read a paper on "Intestinal Obstruction."

Dr. Dykes: This paper of Dr. Clark's was most excellent. One of the most interesting phases of intestinal obstruction is the cause of death. It has been shown that after the injection of duodenal content into experimental animals the same symptoms developed as in cases of intestinal obstruction. In artificial intestinal obstruction, symptoms do not develop if the intestinal mucous membrane has been previously removed.

Dr. Boland: This is a most interesting subject and I am glad that Dr. Clark chose this as his subject. Every general man will run across these cases. High enemata and the knee chest position will relieve some cases without the necessity of an operation. If this does not succeed, rolling on the floor should be tried. It is often well to make a rectal examination with the finger. I have seen two cases of rectal fecal impaction relieved in this way. These patients are always dehydrated and water should be poured in through the veins, rectum, and under the skin. In a recent report of 50 cases at the Grady Hospital, one-half were found to have followed laparotomies performed for the relief of suppurating conditions. However some followed clean laparotomies. Possibly these were due to

faulty technique in covering raw surfaces.

Dr. Selman: My plan is to do as little as possible as quickly as possible. Local anesthesia has saved many lives in this condition. Dr. Babcock at Ft. McPherson advised the administration of a spinal anesthetic. This resulted in many cases having an action on the operating table. However should this not occur no better anesthetic could be desired. They are already toxic and any added burden may prove too much. I have been very well satisfied with the Murphy button. I make an end to end anastomosis. Drainage through a catheter is not a bad idea. If a number of loops are matted together I sometimes drain through a stab wound.

Dr. Cook: I wish to thank Dr. Clark for his paper, and to emphasize the importance of drainage. This alone has saved many lives. The results depend on the time when the patient is seen. The prognosis is good if the case is seen early but often the case is seen very late when he is almost dead. In that case the introduction of a catheter into the intestine under local anesthesia is the only thing justified.

Dr. Clark, closing: I only want to thank the doctors for their discussion.

Dr. Cook, of Columbus, gave a talk on "Stricture of the Ureter." Since he has started doing this work his cases are progressing in geometrical progression. He believes that more of the kidney cases which come to him are due to stricture than any other cause. Many of these cases have been operated upon for various conditions already. Most of his cases are in women. If a female patient complains of pain in the abdomen and he is unable to find any gross change he suspects stricture of the ureter. He never operates upon a chronic appendix without first ruling out stricture of the ureter. The pain in this condition can occur anywhere from the top of the head to the soles of the feet. It is principally in the kidney region. It is a frequent cause of backache. Bladder irritation with frequent painful urination has been observed in several cases for years prior to the commencement of this treatment. Hematuria

used to be considered as indicative of a new growth about the kidney or bladder, or stones or some prostatic condition. In several cases he was unable to demonstrate pathology other than strictures of the ureter. All symptoms were relieved by treatment. Often as he passes the site of the stricture the patient will exclaim "there's my old pain." In many cases there are no urinary changes although there probably have been some at some time. It has been extremely gratifying to him to see nausea, vomiting and all discomfort clear up with this treatment.

For diagnosis he depends largely on the X-ray to rule out stones. He does a pyelogram and often gets a beautiful picture of dilated ureters. The cystoscope is disappointing in this condition for often he does not get very definite findings. Flexible sounds hang as they pass over definite parts of the ureters.

He then showed many X-ray plates and described the cases which they illustrated.

Dr. Clark: I would like to ask Dr. Cook to tell us more of the etiology of these strictures and whether the treatment he uses gives permanent relief.

Dr. Boland: Dr. Hunner has shown that a ureteral stricture should be considered as a seat of focal infection. This condition is commonly mistaken for a chronic appendix.

Dr. Jenkins: As Dr. Cook's X-ray consultant I would like to emphasize that these cases are chronic. They have had many operations already. The good of the X-ray is not so much to diagnose the stricture as to demonstrate the amount of harm already done the kidneys. The X-ray is secondary to the passing of the wax bulb. This will show up many cases the X-ray misses. Following the passing of the wax bulb there is often much pain as contrasted to normal cases which usually have practically none.

Dr. Blanchard. I am interested in stricture of the ureters in children. Pyelitis in children is a common condition. How many of these cases of pyelitis continue into adult life we do not know. I want to call attention to the fact that this condition does occur in children.

Dr. Morrow: I have had two cases to show stricture of the ureters after they had submitted to the use of radium in the region. I would like to mention this as a possible etiological factor.

Dr. Cook, closing: In regard to the etiology, in many cases it is due to focal infection. In a few cases the tonsils were removed with relief of symptoms. It is barely possible that some of these cases can be caused by pressure in the region. Traumatism such as the passage of a rough stone may cause them. As to the treatment I pass catheters armed with a wax bulb. I start with a No. 9, 11, or 12 and dilate some cases as high as No. 18F. In one case there was considerable hemorrhage following the passage of the No. 18 sound. I have not been doing this work long enough to know how permanent the cures will be. If there is reaction after the passage of the sound we know that a stricture is present. I always advise the removal of any foci of infection but many feel so much better that they will not consent to any other work being done. I do not believe a sound will hang if a stricture is not present. With the continuation of treatment as the stricture is dilated there is less and less reaction. On several occasions I have found fragments of mucous membrane adherent to the wax bulb. In these there may be swelling which cuts off the flow of urine and results in the reaction. I also am interested in the use of radium, but I was told at the New York Memorial hospital that they never had seen stricture of the ureter develop in any case where radium had been planted near the ureter. I have just dismissed a seven year old girl with stricture of the ureters. She suffered from bed wetting and her clothes stayed practically wet all the time. After a few weeks treatment in which I went as high as a No. 10 she was entirely relieved. At the commencement of the treatment in this case there was much pus in the urine. I also injected a solution of mercurochrome into the pelvis of each kidney. I always use mercurochrome where there is pus in the urine.

Dr. Jordan, of Columbus, read a paper

on "A Plea for More Persistence in the Treatment of Gonorrhea."

Dr. Norman: I wish to compliment Dr. Jordan on his paper. Lately I have taken the position that chronic gonorrheal urethritis is not curable in this sense, you can never say that the patient is not liable to re-infect others.

Dr. Peacock: I have had such good results from 2 per cent mercurochrome that I advise those of you who do obstetrics to try it in place of the silver salts.

Dr. Thrash: Mercurochrome contains 25 per cent mercury. It is bland and does not precipitate proteins. I recently noticed an article by a Cleveland doctor who obtained a cessation of discharge by the use of intravenous mercurochrome. Dr. Jordan and I tried out a series of fifteen or twenty cases. We used 2 mg. of mercurochrome for each kilo of body weight, or 1 mg. for every pound. Another way is to figure 10 c. c. of a 1 per cent solution for every 100 pounds of body weight. Only after the first injection is there any reaction. This usually clears up the discharge and symptoms after nine to fourteen injections. We give the injections every other day. In the chronic cases we were successful in obtaining negative smears.

Dr. Wagon: I wish to mention the use of mercurochrome in the treatment of acute pyosalpingitis. I inject 5 to 10 cc of a 1 to 2 per cent solution of mercurochrome. I have not done this long enough to be positive as to results. However, so far the results are encouraging. A pyosalpingitis becomes sterile under this treatment after two or three weeks.

Dr. Thrash, of Columbus, read a paper on "The Early Diagnosis of Pulmonary Tuberculosis."

Dr. Norman: For clarity, brevity and practicability, I don't believe I have ever heard a better paper. We have made more progress in the treatment of tuberculosis than we have in the diagnosis. The keynote in the diagnosis of tuberculosis is carefulness. Making a routine examination of the stripped chest is essential. Many men lack confidence in themselves. They refer

the case to other men in whom they have more confidence. The reason they have more confidence in these other men is that these men have formed the habit of being careful in their examination. They have no more sense than the doctor referring the case usually. It should be remembered that symptoms vary from time to time. Any lesion above the third vertebra or the second rib should be considered tubercular until proved otherwise. The laity is getting the habit of going to the X-ray man to find out if they have tuberculosis. The X-ray cannot diagnose tuberculosis any sooner than any good doctor should be able to. Chronic malaria often misleads us in the diagnosis of tuberculosis.

Dr. E. C. Thrash: We should say the importance of the diagnosis of tuberculosis rather than the early diagnosis of tuberculosis. There is no stereotyped method of diagnosing tuberculosis. As long as the patients symptoms are negligible don't worry him about his condition. The X-ray will not tell whether or not a man is sick. Pay more attention to the patient's story. Physical findings at the base usually point to syphilis, at the apex to tuberculosis. Marked physical findings, much sputum and absent organisms usually means something other than tuberculosis. As a rule these patients are better off at home. There is no magic spot for the treatment of tuberculosis.

Dr. Thrash, closing: The X-ray should only be used to confirm other findings. In this paper I have considered the patient more from a symptomatic point of view than a public health point of view.

Dr. Blanchard: We have Dr. Elrod, the President of the State Medical Society with us today, I hope he will favor us with a few words.

Dr. Elrod: Gentlemen this is a real society. The papers and discussions have been good and I only hope that the other district societies can have meetings that will be as good. I want to ask you to urge the formation of county societies in those counties which are now unorganized. These men do not know the benefits of membership in the state society. The benefits you derive from

your county, district and state medical society represents just about what you put into it. One of the most valuable elements in the state society membership is medical protection. Since we have had this feature only one doctor has lost his case. The amount lost in this case amounted to thirty-five dollars. During this time we have protected suits covering an aggregate of one million five hundred thousand dollars. Association makes for knowledge of one another.

One county, Coweta, with good men in it had only one member at the state meeting in 1923. I ask you to please do some missionary work in this and some of the other counties in your district.

Dr. Blanchard: Dr. Elrod allow me to thank you on the part of our members for your talk.

Dr. W. F. Jenkins, of Columbus, read a paper on "The Routine Use of the X-ray."

Capt. Brown: I didn't come prepared to discuss the papers. However, I thoroughly agree with Dr. Jenkins. We have found that group work as practiced in the army is very satisfactory. By this we are able to make diagnoses which would be impossible otherwise.

Dr. E. C. Thrash: Dr. Jenkins is to be complimented upon his paper and especially upon the modesty of his claims. I X-ray every pulmonary case I have. The roentgenologist can give you much help but the X-ray technician can do very little. Work up the clinical side of your case then supplement it with an X-ray examination.

Dr. Boland: The ability to diagnose gallstones with the X-ray depends on their composition. I recently had a case in which the stones cast an exceptionally dense shadow. I had these analyzed and they showed the presence of zinc.

Dr. Jenkins, in closing, thanked the doctors for their discussions.

Dr. F. B. Blackmar, of Columbus, read a paper on "Tuberculosis of the Eyes."

Dr. Peacock: Often cases come to the specialist incompletely worked up. The internist should work up the case before referring it. It is generally agreed that

phlyctenular ophthalmia is a tubercular manifestation. Dr. Benedict of the Mayo Clinic claims that many of these cases are helped by the administration of salvarsan.

Dr. Bunce: I think the diagnosis of tuberculosis in the case presented is clinched from every possible point of view.

Dr. Jenkins: When I saw the patient in the hospital he was very much worse than he is now. Thinking that the growth might be glandular we gave them several X-ray exposures. These did not improve the condition.

Major Stockton: First allow me to thank you gentlemen for your courtesy in inviting us to attend this meeting. On one hand we need civilian contact, on the other hand if any of you have ideas which require a large number of men as patients we can be of aid to you.

Dr. Bunce: I wish to call your attention to the State Journal. Its purpose is to publish the transactions of State, County and District Medical Societies. We want it to be a current history of medicine in Georgia. The character of the articles is a reflection of the work being done in Georgia today. Practically every branch of medicine and surgery is covered and covered well. All we can do is to gather your material, publish it, and send it back to you. The councillor has no other function than to help pull Georgia out of its low level. The average membership for the United States is 60 per cent, Georgia is much lower. Alabama has 75 per cent of the doctors enrolled in her State Medical Society, without a state journal and without any medical defence.

Dr. Boland: I wish to call your attention to the need of belonging to the medical reserve corps. The presence of our friends from Fort Benning emphasizes this. You can find any necessary information by applying to the Headquarters of the Medical Reserve Corps, Atlanta, Georgia.

Dr. Peacock: I move that we extend a rising vote of thanks to the LaGrange men for our royal entertainment today.

Dr. Jim Thrash: I move that the Fourth District Medical Society hold one meeting

a year. I also wish to extend an invitation to the Society on the part of the Muscogee County Society to hold its next meeting in Columbus at a date to be announced later.

This was carried.

Dr. Blackmar: I wish to make my report as Secretary and Treasurer.

Expenditures:

Stationary	\$ 9.75
Ribbon for badges	2.25
Printing same	2.00
Postage	2.00
Purchase of and printing return postal cards	5.50
Programs	3.75
	<hr/>
	\$25.25

Received:

Dues from 47 members at \$1.00 each	\$47.00
Deposited Savings Account Mer- chants and Mechanics Bank	\$21.75

Dr. Roberts: We, the Vice-Councillor and I, need much help in doing the immense amount of work which can be done in this district. There are many good men in our counties and I ask your cooperation in lining these men up as members and encouraging them to appear on the programs of our meetings. I don't believe this meeting could be beat anywhere and am glad to see this society reorganized. I hope we will have an even larger attendance in Columbus.

Dr. Peacock: I move that the Councillor appoint a program committee to encourage a representative from various sections of the district to appear on the program at the next meeting.

FRANCIS BURTON BLACKMAR, Sec.,
408 Woolworth Bldg.,
Columbus, Ga.

EVANS COUNTY SOCIETY

The doctors in Evans County, who were formerly members of the Tattnall-Evans County Medical Society, have organized a society among themselves to be known as the Evans County Medical Society. Dr. B. E. Miller, of Claxton, has been elected as President and Dr. D. S. Clanton, of Hagan, Secretary-Treasurer.

THE FISHING TRIP OF THE FIRST DISTRICT MEDICAL SOCIETY

The meeting of the First District Medical Society was called to order at ten A. M., July 15th, at DeSoto Hotel, Savannah. The First District was host to visiting physicians from over the State.

The program of the scientific sessions for the two days, July 15 and 16, was published in the August issue of the Journal.

These two days of the meeting were instructive and papers were discussed extensively. The very large attendance during these days made one think that he was attending a meeting of the State Association.

When the visiting doctors were not present at the Scientific Sessions the Savannah doctors were taking them on sight seeing drives and entertaining them in some delightful way. Every minute of their time was filled.

The third day was given entirely to entertainment and pleasure. Every physician in Georgia who has ever attended a Medical Meeting in Savannah knows that Savannah doctors believe in entertaining their visiting friends. That they went themselves one better this time than ever before was the vote of the visiting doctors.

The visitors were told to be at the DeSoto Hotel at 9:45 o'clock on Thursday morning, July 17th, where automobiles would be in waiting for every one to go to the wharf near the noted Bannon's Lodge. From there we would leave on two boats for Warsaw Island for a days fishing, plenty of tackle, bait, food and cold drinks being on board.

As we began to go aboard Dr. W. R. Dancy pulled up in "Sonia" (Merry Widow), his own nice little yacht, and requested that about ten go with him.

All being aboard the three boats we cruised down the Wilmington River. The day was all that could be asked for; the river was calm, as the tide was going out; and sailing was smooth. After about one and half hours of listening to a great variety of jokes and some "shop talk," sandwiched with cold drinks from Orange Crush to well made fruit punch, we anchored near

Warsaw Island with all three boats side by side making them as one big boat.

The time had arrived for every fellow to achieve his anticipation of landing that "Big Fish." Some of the more experienced fishermen took row boats and went out some distance from the main boats to give each man room to land his big catch. Dr. G. R. White was the first to make a catch. Scarcely had he landed one when others began to land them on every side.

Suddenly someone called out that the fellows in the row boat that were fishing for shark had caught a large one. Everyone rushed to the side of the boat next to them to see them land their catch. Just as Dr. Howard and Dr. Waters thought they were going to land a six-foot shark, Dr. A. J. Waring who was in the boat with them yelled, "Don't put him in here." Then the shark tore loose and all were disappointed.

The fishing was enjoyed until the cooks announced dinner, then every fellow was ready to haul in his line. The Entertainment Committee had left nothing undone, when it came to good feed—all kind of fish food with everything that goes with it, even the very best hot coffee and a variety of cold drinks.

This dinner on a boat out in the clear river with every fellow ready to welcome it was delightful, and enjoyed by every one present. This is vouched for, because each fellow did his very best to demonstrate it by the amount that he "hid away."

After the delightful dinner most of the fellows were willing to lounge around awhile and exchange jokes and "shop talks." Some, however, did more fishing, some played games, and some went swimming—all of which was very pleasant.

The time had arrived for us to set sail to return to our starting point. The tide was coming in; we were headed toward the setting sun. The view from the boat to an inlander was extraordinary in its magnificence and combinations—"sky and sea met and kissed each other." The sky rivalled the coral in delicacy of texture and the rainbow in variety of color. The sun was occasionally behind a cloud; but when it



"SONIA"

flashed on the rippling water the kaleidoscopic effects were exquisite and would cause even the most indifferent to pause and wonder. Only those who beheld it can realize its grandeur and magnificence.

It was with regret that the day was ending and that we were coming in sight of the wharf, where this pleasant association would come to an end. At this time the visiting physicians altogether gave three cheers to the Savannah physicians for this most delightful day of entertainment, which they had given them.

The landing was soon made; and then the separation. All returned to the city by auto and hurriedly made ready to board their train to return to their respective homes. Once again they would start on their daily rounds of ministering to the ills of humanity; but each feeling more refreshed and with renewed energy from having been the guest of the Savannah physicians.

The following physicians were on the fishing trip:

W. R. Dancy, Savannah; V. H. Bassett, Savannah; H. H. McGee, Sr., Savannah; H. H. McGee, Jr., Savannah; D. B. Edwards, Savannah; H. W. Hesse, Savannah; G. R. White, Savannah; J. L. Hiers, Savannah; W. H. Myers, Savannah; Wm. Shearhouse, Savannah; H. L. Tippens, Savannah; E. C. Demmond, Savannah; W. A. Cole, Savannah; G. P. Touchstone, Savannah; L. A. DeLoach, Savannah; DeLamar Turner, Savannah; A. J. Waring, Savannah; J. R. Graves, Savannah; Harry Righton, Savannah; L. W. Williams, Savannah; C. R. Riner, Savannah; Lee Howard, Savannah; Lem T. Waters,

Savannah; G. W. Faggart, Savannah; B. B. Jones, Metter; G. W. Willis, Ocilla; L. L. Whiddon, Ocilla; F. F. Floyd, Statesboro; A. J. Mooney, Statesboro; H. R. Tarver, Guyton; M. A. Massoud, Pineora; B. L. Miller, Claxton; Geo. E. Ellaby, Daisy; W. W. Evans, Haleyondale; Cleve Thompson, Millen; C. K. Sharp, Arlington; T. E. Wellborn, Hinesville; C. E. Stapleton, Groveland; J. M. McElveen, Brooklet; V. O. Harvard, Arabi; H. D. Youmans, Lyons; J. O. Elrod, Forsyth.

"A Visitor."

RAILWAY SURGEONS' ASSOCIATION

The sixth annual session of the Railway Surgeons' Association of Georgia was held in Savannah, Wednesday, August 20, 1924, at the Hotel DeSoto. The following addresses and papers were read:

Addresses

Dr. Jos. M. Burke, Chief Surgeon of S. A. L. Ry., Petersburg, Va., addressed the Convention on "Traumatic and Industrial Hernia."

Papers

"Forgetfulness," Dr. Joe P. Bowdoin, Atlanta. Discussed by Dr. J. G. Dean, Dawson, and Dr. Lee Howard, Savannah.

"The Surgeon's Position in the Railway Official Family," Dr. Thos. H. Hancock, Atlanta. Discussed by Dr. T. S. Clay, Savannah, and Dr. A. R. Rozar, Macon.

"Complete Luxation of the Carpal Semilunar Bone Without Fracture of the Other Bones of the Wrist," Dr. S. R. Corson, Savannah. Discussed by Dr. Frank Eskridge, Atlanta.

"The Report of an Unusual Pelvic Injury," Dr. Hugh N. Page, Augusta. Discussed by Dr. J. M. Byne, Waynesboro, and Dr. W. H. Goodrich, Augusta.

"Contusions of the Abdomen," Dr. Guy T. Bernard, Augusta. Discussed by Dr. B. E. Miller, Claxton, and Dr. A. J. Mooney, Statesboro.

A Good Word For Mrs. Snyder

Dr. C. K. Wall, of Thomasville, made the following notation on his discussion:

"Would like to congratulate the short-hand lady for the correctness of the transcription in both my discussions."

THOMAS COUNTY MEDICAL SOCIETY

The Thomas County Medical Society met Wednesday, August 13th, at Meigs, and was called to order by President J. T. King. There were twenty-one of the twenty-six members present. Dr. King, after the reading of minutes of last meeting, ruled that the secretary should proceed to the scientific papers and take up business matters later.

The first paper was by Dr. Mary J. Erickson, on Diabetes. Dr. Erickson's paper showed evidence of a great deal of work in its preparation and was most instructive to the members present in its description of the blood and urinary chemistry of this disease.

Dr. E. K. Maclean next presented a paper on Conservative Infant Feeding. This was an excellent paper and well presented. It was discussed by Drs. Ferguson and Cheshire. The third scientific item before the Society was a case presented by Dr. Summerlin, of a boy of five with a spastic paralysis of the legs, causing a peculiar gait. This was discussed generally and it was decided to try to get the child into the Scottish Rite Hospital for Crippled Children, in Atlanta. It is hoped that he may be greatly improved with the facilities afforded by the staff there.

Dr. Little next read a paper on Intussusception in Babies. He had a series of five cases taken from his own and the service of Dr. Watt during a period of several months recently. This was most interestingly prepared and well presented. It was discussed by Dr. Watt.

After the scientific papers were finished the Society repaired to a most deliciously prepared luncheon served by the Ladies' Aid Society of Meigs. During the luncheon the only business of the day was transacted. This was the re-election of Drs. Wall and Jarrell to succeed themselves on the Hospital Board of Directors of the City Hospital.

This was one of the best attended meetings, as well as the best all-round meetings the Society has had in several years. Every paper scheduled was read.

COMMUNICATIONS

Editor of The Journal:

It has occurred to me that the medical profession has allowed themselves to be imposed upon by the Insurance Companies. This statement is based upon frequent requests that come into my office, marked "strictly confidential and must be so treated." "Kindly furnish the following information, without expense to the Company, and greatly oblige both ourselves and the applicant." Then the Company asks that we furnish them in confidence the history and symptoms obtained from the patient in confidence, and give "without expense to the Company," the benefit of our knowledge and skill in arriving at a diagnosis.

To my mind we have no right to give in confidence information obtained in confidence from a patient. Secondly, why should we give our skill and knowledge to large corporations in order to protect them against losses, free of charge. They have their examiners to whom they pay a fee that is never commensurate with the protection they get. The agent who merely solicits the business, and who never stands between the Company and the loss of thousands of dollars, gets many times the fee that the physician, who stands as a protecting agent to the Company, receives.

To my mind the physician should take a firm stand and positively refuse free information to any corporation. If they want information, and the patient in writing states that he desires this information given to the Company, then we should exact of that Company a fee commensurate with the skill and time that we employed in arriving at a correct diagnosis of the patient's trouble.

I have never heard of an Insurance Company asking an attorney for a free opinion. They have no agents that are working for the pleasure of it, and why should a physician give the Company information and an opinion free of charge. Again, should we fill out proofs of death for an Insurance Company free of charge?

These are just a few ideas that have come

into my mind from daily contact with the increasing demands made upon the medical profession for free service. The community asks us to take care of the poor free of charge; the Insurance Companies ask us to protect them from losses free of charge; the deadbeat gets our services free of charge; if this thing continues what will become of the medical profession?

I would appreciate a free discussion through your columns on this very important subject.

Yours truly,
JOHN W. DANIEL.

August 16, 1924.
1216 Drayton St.,
Savannah, Ga.

Dear Dr. Bunce:

Referring to our telephone conversation recently regarding the Southern Medical Association convention which will be held in New Orleans, La., November 24-27, 1924:

Of course, it is a little early to figure on the attendance to this convention but at the same time, we are desirous of working up as much enthusiasm as possible.

As you no doubt know, reduced rates have been authorized on account of this occasion, the rates being one and one-half fares for the round trip. Below, I beg to show the round trip rate from the principal points in Georgia to New Orleans and return authorized on account of this convention:

Atlanta	\$26.67
Brunswick	33.87 X
Dalton	28.95
Griffin	28.80
Macon	27.80
Rome	28.95
Athens	30.62
Cartersville	28.95
Douglas	29.94 X
Helena	29.33 X
Marietta	28.55
Vidalia	31.17 X
Augusta	34.55
Cedartown	28.19
Dublin	30.71 X
LaGrange	22.86
Newnan	24.59
Waycross	30.74 X

The points shown with the (X) prefix indicates the rate by way of Montgomery to New Orleans but does not apply from Atlanta. The rates from the other points shown apply by way of Atlanta and Montgomery.

We are very anxious to work up one or two special cars to be operated from Atlanta to New Orleans on account of this occasion. If you get any sort of publication out from time to time, we will appreciate very much if you would show these rates for the benefit of those who would likely be interested.

Assuring you of our full co-operation in any way possible towards working up a large delegation from Georgia.

Yours truly,
F. L. NELSON,
District Passenger Agent.

Dear Dr. Bunce:

I attended the Southern Pediatric Seminar at Saluda and found it most helpful indeed. As a matter of fact, the men who are putting this work on deserve unstinting praise for they are rendering a real service at considerable personal sacrifice. The slogan is "better babies in the South" which will be realized if we will only take advantage of what is there for us. I was appointed vice-president of the 1924 class from Georgia. The chief duty is to let the physicians of any state know about the clinic and I know of no better way than getting you to tell them about it in the Journal. It will benefit all who are still alive and help them to get some money which would go prematurely to the undertaker who cannot kick for they will be only deferred payments for he will get us all finally. Boost it in an early issue.

Fraternally yours,
J. A. REDFEARN.

MARRIAGES

Mr. and Mrs. Andrew Scott McKillop, of Mulberry, Fla., announce the marriage of their daughter, Slaton Scott, to Dr. Herbert Foster Gaines, of Birmingham, Ala., formerly of Atlanta and Elberton, on July 5, 1924.

NEWS ITEMS

Alumni of The University Medical College, Kansas City, Missouri, will hold a reunion banquet, Wednesday, October 15, 1924, 6:30 P. M. in the Banquet room of the Kansas City Athletic Club, 11th & Baltimore, Kansas City, Missouri.

During the noon hour of the same day the various classes from 1882 to 1913, inclusive, will hold individual class reunion luncheons.

The reunion banquet is a part of the program of the Kansas City Clinical Society, which will convene in Convention Hall, Kansas City, Missouri. October 13-18, 1924.

The friends of Dr. W. Terrell Simpson, who was formerly associated with the Drs. Wise, of Plains, will regret to learn that he has left his home town and is now associated with Dr. Paul P. Satler, of Eufaula, Alabama. Dr. Simpson was a member of the Sumter County Medical Society.

Dr. Lee L. Robinson, of Naylor, has purchased an interest with Dr. J. F. Burchett in his Polyclinic Hospital, in Valdosta. Dr. Robinson will have charge of diseases of women and children and general medicine. Dr. Burchett will head the eye, ear, nose, throat and general department.

Dr. D. J. Rogers, who has successfully conducted the Rogers' Sanitarium in Savannah, has leased the institution to Drs. Colvin and Ritch. Dr. Rogers will practice his profession in Glennville.

Dr. Guy O. Wheelchel has become associated with Drs. Fullilove and Stewart in the St. Marys Hospital, Athens. Dr. Wheelchel's practice will be limited to internal medicine.

Dr. J. W. Payne, Sumter County Health Commissioner, has reduced the malarial percentage in Leslie from 95 per cent to 5 per cent. All breeding places of mosquitoes were destroyed and drainage workers were put to work.

Dr. M. A. Fort, of the State Health Bureau, and Dr. M. E. Winchester, Thomas

County Health Officer, have been in Thomasville looking into the typhoid fever situation. There have been fewer cases in this county than in most any other in this part of the State.

The Second District Medical Society met in Pelham, Mitchell County, September 12, 1924.

The Ninth District Medical Society held a meeting in Gainesville, Hall County, September 17, 1924.

Dr. J. T. McCall, of Rome, will entertain the members of the Seventh District Medical Society at a barbecue at the Coosa Country Club in Rome, September 24, 1924.

OBITUARY

Dr. William G. Crumley, well-known Atlanta physician, died August 9, 1924. Dr. Crumley never regained his health after the war and was forced to give up his practice about a year ago. He had gone to Clayton hoping to regain his health. Dr. Crumley was 39 years old and a native Atlantian. He was a graduate of Georgia Tech and the Atlanta College of Physicians and Surgeons.

Dr. Walter Patrick Rushin died at the Macon Hospital, Macon, August 14, 1924, after a long illness. He had practiced medicine for 36 years, 19 of which were in Macon. Dr. Rushin was born and reared in Thomas County and moved from Albany to Macon 19 years ago.

Dr. B. B. Luck, of Breckenridge, Texas, formerly of College Park, Georgia, died April 5, 1924, at Fort Worth, Texas. His body was brought to College Park, July 14th, for interment, services already having been held in Fort Worth.

Dr. T. G. Turk, for 25 years a practicing physician, died at his home, Reynolds, suddenly with heart trouble, July 28, 1924. Dr. John Turk, of Uelson, is a brother of Dr. Turk.

BOOK REVIEWS

Gynecology—William P. Graves, A. B., M. D., F. A. C. S. Professor of Gynecology, Harvard Medical School. W. B. Saunders Company, Philadelphia and London.

This is the 3rd Edition, thoroughly revised, of Dr. Graves' popular work on Gynecology. While wisely omitting many obsolete things he has by adding much new matter increased the size of the volume by about 50 pages. He has incorporated in this Edition all the important advances made in Gynecology during the past few years. This is particularly true in regard to the etiology and pathology of ovarian tumors. Several pages are devoted to a discussion of the epochal work done by Dr. John A. Sampson on the Etiology of Perforating Chocolate Cysts of the Ovary, the origin of which before Dr. Sampson's investigations, was very obscure. Much space is devoted to the discussion of the treatment of Cancer of the Uterine Cervix. The tendency of most authorities at present is toward the Radium and X-ray treatment of this condition even in the so-called operable cases, and, while the Author appears to lean toward the operative treatment, he gives a fair discussion of the comparative values of these different treatments.

The illustrations are particularly good, the Author himself contributing 388 half-tone and pen drawings. The explanatory texts accompanying the illustrations are very clear.

In the previous editions Dr. Graves devotes only a small part to descriptions of operations, and then only tried and proven operations are included. This is also true in this edition but many new ones have been added. Here also the drawings with their explanatory texts are exceptionally clear.

This is a valuable work for the advanced student, general practitioner and specialist.

JNO. F. DENTON.

PRACTICAL THERAPEUTICS

By Hobart Amory Hare, Philadelphia, Pa.
Published by Lea & Febiger, 1922

In this work Dr. Hare has given to the profession a most valuable contribution, and this is evidenced by its distribution among the libraries of physicians and medical students over the country. The whole field of therapeutics is exhaustively and thoroughly covered, and is presented in this volume in a very attractive and available form. Besides an exposition of the different drugs and prescriptions; in this work Dr. Hare has thoroughly explored the several domains of mechanical and electrical therapeutics; hydrotherapeutics; serological, biological and chemical therapeutics; dietetics and vaccine therapy.

The volume consists of ten hundred and thirty-eight pages and constructed along the following plan: The first part deals with general therapeutic considerations; including tables of doses and measures; prescription writing; contra-indications, and the action of various drugs. The second part takes up each drug in detail, giving its pharmacology, toxicology, therapeutics and mode of administration. The third part deals with the several therapeutic agencies other than drugs, including the feeding of the sick. Part four takes up the various diseases and a discussion of their treatment. The whole work is arranged alphabetically, and in addition a feature of merit is the index, which is divided into two parts; referring respectively to drugs and diseases. These features of construction thereby make it a very convenient reference work. Now in regards to unfavorable criticism, there are one or two features in the opinion of this critic that might deserve mention. In the first place the work is too comprehensive; there is too much information presented without proper stress of differentiation between the good and the mediocre. The more or less inexperienced therapist will find himself at sea, not knowing what to choose. Secondly, one gets the impression on reading this book that Dr. Hare is too much of a therapeutic optimist. I suppose, however, any one who writes a book on therapeutics

has to be. For illustration the following statement is one of many to be found in the work: "Another remedy for the relief and cure of asthma is *enphorbia pilulifera*." The author of this review seriously doubts that this or any other drug cures asthma.

Finally, and in my opinion the greatest defect in this work, is that in the prescriptions listed under the various diseases there are numerous instances where obsolete or infrequently used drugs and preparations are given. This fact I had corroborated by two reputable pharmacists and druggists in this city. On the whole this book of Dr. Hare's is an excellent one and is deserving of its place as one of the standard works on therapeutics.

CHAMP H. HOLMES.

DIABETES

Philip Horovitz, second edition 1924, published by Paul H. Hoeber, Inc., New York City; 219 pages 34 illustrations and 2 colored plates; price \$2.00.

This small book is similar to the other manuals for the use of physicians and patients. It contains a short historical sketch of the discovery of insulin, and instructions for its use. There is a description of all the essential laboratory tests and the appendix contains a historical sketch of diabetes and numerous weight tables.

The subject matter of the book covers the diagnosis and treatment of diabetes in such a way as to be of help both to physician and patient. There are numerous useful recipes and food tables.

This manual is not superior to others of the same type and some of the subject matter is rather unusual. In contrast to other authorities the author finds the etiology of diabetes to be a result of autointoxication or mineral poisons affecting the endocrine glands. Dietetic treatment is supplemented by the use of *Bacillus Bulgaricus* and *Bacillus Acidophilus*. The author also finds that some individuals show idiosyncrasies to some foods while tolerating others having the same proportionate content of carbo-

hydrate protein and fat and with the same caloric yield.

The subject matter is presented in a manner which is easily understood.

H. M. BOWCOCK.

DISEASES OF THE SKIN

Stellwagon & Gaskill. Ninth Edition

Published by W. B. Saunders Co.

This edition continues to hold the high place in dermatological literature accorded the previous editions by this author. This edition brings up to date the more recent advances in dermatology. It is a most excellent reference book for either the practitioner or specialist as both symptomatology and treatment are dealt with at length.

JACK W. JONES.

MANAGEMENT OF DIABETES

Treatment by Dietary Regulation and the use of Insulin. A Manual for Physicians and Nurses Based on the Course of Instruction Given at the Presbyterian Hospital, New York, by George A. Harrop, Jr., M. D., Associate in Medicine, College of Physicians and Surgeons, Columbia University. Introduction by Walter W. Palmer, M. D., Bard Professor of Medicine, College of Physicians and Surgeons, Columbia University. Cloth. Price, \$2 net. New York: Paul B. Hoeber, 1924.

The author is both a practical man and one who is experienced as a teacher, his book combines thoroughness and simplicity. The food lists in it are very complete and the diabetic recipes offer great help in varying a limited diet. Especially valuable is the chapter on the use of insulin in acidosis and coma. The unusual complications of diabetes are fully discussed from the standpoint of recognition and treatment.

HAL McC. DAVISON.

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PRURITUS OF THE PERINEUM

Pruritus of the perineum has certainly merited the distinction of being a bete noire of medicine. One who reads this monograph will therefore be agreeably surprised to find that the author has departed from the usual rehearsal of generalities and has treated the subject in a rational manner.

Quoting Mueller's law of the specific energy of the senses that "no kind of sensation can be produced by external causes which cannot be equally excited in the absence of external causes by intrinsic changes in our nerves," the author distinguishes between "direct pruritus" due to irritation of the peripheral nerve endings in the pruritic zone, and "indirect pruritus" due to the stimulation of somatic afferents of diseased pelvic or abdominal viscera and referred through the second, third and fourth sacral segments to the pruritic zone. Indirect pruritus continues even after the pruritic zone has been thoroughly infiltrated with local anesthetic or after sacral nerve blocking or superficial neurotomy, whereas direct

pruritus may be removed by the foregoing measures.

The details of the history and examination are presented, to better impress the reader with the importance of discovering an abdominal or pelvic visceral lesion which might be the etiological factor in indirect pruritus. Failure to recognize and remove such a factor is the greatest cause of failure in the treatment of this form of pruritus. Furthermore, it may be found that the unrecognized abdominal or pelvic lesion is of greater importance than the pruritus. A full discussion of medical and surgical therapeutic measures is presented from the viewpoint of one who has had unusually favorable opportunities and facilities for the study of this condition. The phraseology is clear and the authors habit of recapitulation and repetition serves to better impress on the reader the most important facts. This monograph is recommended to all who may have occasion to treat those afflicted with this malady.

R. A. BARTHOLOMEW.

INSULIN TREATMENT OF THE TOX- EMIC VOMITING OF PREGNANCY

William Thalhimier, Milwaukee (Journal A. M. A., March 1, 1924), has treated three patients with severe, toxemic vomiting of pregnancy with a combination of hypodermic injections of insulin and the intravenous administration of glucose solution. The results have been striking, and parallel exactly the results in all patients with postoperative acidosis similarly treated. Thalhimier cautions that only pure, tested glucose should be used in preparing the glucose solution. A 10 per cent solution is convenient to use, as with it the patient recovers a fair amount of much needed water along with the glucose. The solution should be run in slowly, about 200 to 300 c.c. an hour, and it is important that it be kept warm; 1,000 c.c. is the amount usually given at a time. About fifteen minutes after the injection is started, about 10 units of insulin is given hypodermically (i. e., 10 of the new U-letin units). At intervals thereafter 10 units is given until for 100 gm. of glucose (1,000 c.c. of 10 per cent solution) 30 units

THE AMERICAN PROCTOLOGIC SOCI- ETY, NEW YORK ACADEMY OF MEDICINE, JUNE 23-25, 1924

"Quo Vadis," Proctologist, Presidential Address, Ralph W. Jackson, M. D., F. A. C. S., Fall River, Mass.: The writer said that the twenty-fifth anniversary of the Society was an appropriate time to consider its future and that of proctology. The development of any specialty was due to the need of better work in that particular line and this has been specially true of proctology. As there is need of general practitioners in rural communities, so there is need of proctologists in other than the largest cities. New England was cited as an example of such need. The need is general and offers a profitable field for specialization. The American Proctologic Society and the Section on Gastro-enterology and Proctology of the A. M. A. should take the lead in encouraging such specialization. Recommen-

dations of past presidents of the former along this line have not lead to adequate action. Too few of the Fellows have carried the burden of the work. The Secretary has the greatest opportunity for advancing proctology, but must have cooperation. The papers collected in the Transactions are more likely to be consulted than when sporadically published in the journals. The transactions are widely distributed and in demand by young proctologists, and offer the most permanent publicity. A special journal in proctology would do much to advance the specialty, but is impracticable at present. Some method of keeping all proctologists posted on current events is desirable. Not all Fellows can write books, but all have something to contribute to proctologic knowledge, and can best do it through the Transactions. Elementary proctologic teaching in schools is far below par, and the graduates correspondingly ignorant. Too many good proctologists are not affiliated with the Society, but should be for their own good and that of the specialty. A list of such men should be compiled, and the Associate Fellowship should be the means of accomplishing the desired affiliation. Finally the writer said that, though the Society had accomplished much for proctology in the past twenty-five years only an intensive campaign by the Society, by every Fellow, and by every one who ought to be a Fellow, would give the specialty the future it deserves.

"Protozoal Infection and the Relationship to Dysentery"—G. Milton Linthicum, N. M., M. D., F. A. C. S., Baltimore, Md.: A historical synopsis is used not alone for its interest, but to associate it with the present recognized classification of Ciliata, Flagellata. Amoeba and Coccidia. The life history of the various groups calls attention to the cycle completed within the host; the feeble vitality of the organism outside, as contrasted with the virility within the tract; the manner of dissemination by the cysts alone, and the danger of unbroken sanitary provisions. Danger of epidemics of infec-

tion is slight, while increased number of cases are to be expected, as travel in the tropics increase. The possibility of protozoal infection is suggested in chronic or intermittent diarrhoeas. Parasitism is a term not applicable to all the protozoa as it suggests baneful influences while only the *Amoeba histolytica* and *Balantidium Coli*, have been incontrovertibly proven guilty.

Further pathological studies are needed, also a study of the relationship of absorption from intestinal lesions, and the depression associated with these infections is suggested.

Postural Defects Affecting the Rectum. — C. C. Mechling, M. D., Pittsburgh, Pa.: A variety of pains referred to the ano-rectal region but of obscure origin, are believed to be due to a faulty sitting posture. These pains are referred through the sacral plexus. Orthopedists recognize four points in the spine usually strained and of these the lumbosacral region is the part most exposed to pain.

Strain results from weight and pressure applied to the coccyx and sacrum from unnatural directions. The skin over the coccyx and sacrum show keratoses, while the usual keratotic areas over the tuberosities of the ischia are absent. The diagnosis is made from the history of vague pains, the characteristic skin changes, and absence of lesions in the bowel.

Precancerous Conditions About the Rectum.—Arthur A. Landsman, M. D., New York: The writer mentions the large mortality from carcinoma in general, and cites statistical data to prove that the disease is steadily on the increase. After quoting authorities to prove that there are wide differences of opinion about the causes which are held responsible for the origin of carcinoma, he goes on to state that there is an agreement on two points: (a) that in a certain proportion of cases cancer is preceded by long continued irritation, (b) there is in most instances an abnormal state of the tissues at the site where malignancy

develops, such as erosions, ulceration, hypertrophies, cicatrices, benign growths, etc. He refers to some personal cases in which apparently innocent ano-rectal lesions were transformed into malignant tumors and submits similar examples from literature. The author groups the pathological conditions about the ano-rectal region which are liable to malignant degeneration as follows:

1. Any indolent sore, erosion, crack, fissure, ulcer, wound or break in the tissue, which in the absence of unfavorable constitutional conditions, fails to heal. Especially when this is located at the recto-sigmoid, muco-cutaneous junction, at the base of one of the valves, at the point of attachment of supposedly innocent growths, about folds or situations where there is an abrupt change of structure or locations where it is exposed to repeated bruising.

2. Benign neoplasms which are soft, highly pigmented multiply in great numbers, grow rapidly, extend steadily, have a tendency to grow on a broad base rather than on an elongated pedicle and recur after removal.

3. Any long standing irritative disease or process about the rectum, such as fistula, stricture, prolapsed rectum, diverticulitis, the skin changes which follow chronic anal pruritis, peri-anal dermatitis, eczema, leukoplakia, may in time result in malignant degeneration.

4. Inflammatory lesions due to tuberculosis or syphilis may have carcinoma engrafted upon them.

5. Malformations and congenital tumors occasionally acquire a malignant character.

Concluding, he advises that since it is impossible to foretell when any of the above may undergo malignant transformation that ALL of them be promptly corrected or removed whenever this can be done, is a truly preventive treatment of carcinoma.

Observations Relative to the Spastic Colon. —Edward B. Kaple, M. D., Syracuse, N. Y.: The writer does not attempt to present any new or original contributions on the subject of enterospasm, but feels that too lit-

tle consideration has been given the subject in the text books on diseases of the anus, rectum, and colon.

A study of the records of those cases of constipation who have consulted the writer, excluding those of an obtrusive type due to malignant or benign growths, adhesions, or anatomical abnormalities, shows the spastic type to constitute over 30 per cent where it has been possible to include an X-ray study in making the diagnosis; if those cases which he believes to have been spastic, but was unable to definitely prove them so, are included, the percentage is even higher. If these figures are an approximate estimate of the comparative frequency of spastic constipation, then its importance becomes obvious.

The writer quotes from many text books to show a recorded view that this type of constipation is comparatively rare; that when present it is most often secondary to some diseases of the nervous system, faulty position of the kidney or colon, some toxic or chemical irritant, or to some gastric or intestinal disease. He states as his experience and his conviction, that it is not at all uncommon, and while admitting all the above causes to be at times present and active, yet the most frequently prevailing etiological factor he believes to be some irritation focus in the rectum.

The writer contends that if there be any truth in the idea of irritation resulting from gastric, intestinal, or gall bladder pathology, or even from a displaced kidney, producing a reflex spasm of the colon, that it is equally logical to assume that the irritation from lower rectal pathology may pass through the above mentioned nerve paths to the plexuses of Aurbach in the colon.

Vaccines in the Treatment of Pruritis Ani.—J. F. Montague, M. D., New York: Bacterial infection of the skin in a pruritic area is liable to occur in all cases. That it

does not occur in 100 per cent of the cases is due either to efficacy of the local barriers, to invasion, i. e., the resistance of normal skin and mucosa to invasion, or to the efficacy of the immune powers of the body cells and plasma fluid to resist such invasion. When pruritus continues for any length of time the local barrier to infection is weakened or broken by the scratching and rubbing incidental to efforts at relief from the itching. This may be observed clinically in the form of excoriations or erosions. With such breaks in the skin bacterial invasion is rendered easy. The only factor which can prevent infection then is the immune powers of the cells and plasma fluid. When this is normal invasion is successfully resisted. When it is not up to normal invasion is certain to occur. Hence the author urges the use of suitable vaccines in all cases of pruritus showing excoriations or abrasions. The object of such vaccines is to increase immune bodies to such an extent as to successfully resist and destroy invading bacteria. In such a situation the use of vaccines is an auxiliary curative measure. But to go one step further in the intelligent use of vaccines—they may be used as prophylactic against invasion in every case of pruritus for the reason that then should excoriations or erosions occur the immune bodies will be preponderant from the start and invasion will be rendered less likely. The author uses successfully a vaccine of those organisms which his bacteriological researches have proven the causative agents in such invasion, namely the *Staphylococcus albus* and *B. Coli*.

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Original Articles

SYMPOSIUM ON ABDOMINAL SURGERY

PREVENTIVE ABDOMINAL SURGERY*

C. W. Roberts, M. D.,
Atlanta, Ga.

Surgical attack upon the abdomen has come to occupy a position of first rank in the daily program of the modern hospital. Often with little to commend it, save the ability of the average physician, schooled in the technique of surgical art to make safe exploration, the abdominal cavity is opened, its viscera scrutinized, some recognized procedure deftly practiced and then closed, leaving its possessor only the memory of a "successful operation" as compensation for his part in a trying ordeal. Nor is this curious attraction to explore a modern concept. The abdomen has seemed to challenge the daring in surgeons since the very dawn of the healing art. Its anatomic name, "Abdere"—to hide, to conceal, suggested secrets which lay within and lured our intrepid predecessors to seek their explanation. With such consuming interest did they command that, finally making bold to suffer any consequence, notwithstanding the threatening skeptical mob, MacDowell (1809) placed upon the altar of his convictions, a willingness to lose his own life that he might consummate his aspiration to re-

move an ovarian tumor, and the first laparotomy was performed. Quickly anxious confreres followed his lead. The unparalleled miracle was solemnly repeated.

Then and Now in Surgery of the Abdomen

With the advent of Pasteur's epoch-making discovery, and its practical application by Lister, the barrier which had held the early surgeon in check, was removed. The halting hand now quickly unleashed, began rapid strides in the development of abdominal surgery, and aided by the natural protective powers of the peritoneum, the abdominal mystery fast gave way. To take the place of the halting hand, restrained by the narrow limits of a new-found and uncharted human benefaction, but guided by a high sense of honor and responsibility, has come the bold and fearless surgeon of our time, in whose day the doing of laparotomies is but a mere incident. Can it be that the mastery of deadly factors hitherto holding in check the cautious, conservative followers of our art, has been converted to unholy ends by those whose type seems ever on the increase—the radical careless operator, to the end that ill-advised operations upon the abdomen, with trifling or sparse excuse, has become the flagrant surgical scandal of our day.

Then, in the breaking dawn of surgical science, ignorance of the fundamentals cost life and laid heavily its toll of misery upon

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

the race. Now, a knowledge built upon safety of technical procedure, which unhappily has outstripped diagnostic skill, leads with startling frequency to the adoption of surgical measures, and too often the second state of the patient is worse than the first. It is unpleasant to discuss questions which carry a veiled accusation against our profession. That many ill-advised, if not wholly unnecessary operations upon the abdomen are being done, I feel all those who have watched the trend of medicine in late years will readily agree. If by frank discussion, we may be able to purge our profession of a dangerous tendency, an evil which holds a constant and growing threat over the future of a legitimate and indispensable branch of medicine, we may conclude that the results justify the unpalatable dose.

Knowledge is Power—Uncontrolled Knowledge a Menace

Surgical science has reached a high state of development. Technical procedure has been refined and again redrafted and improved. Surgeons have become dexterous, mechanical operators. With each other they vie in the time consumed in doing an appendectomy or ovariectomy, and quibble over the best type of skin stitch with which to close the abdomen. False emphasis on surgical science and intricate technique has trained super-men with minds surcharged with accurate knowledge pertaining to all phases of surgical practice. The world has never seen better or more dexterous workmen than are found now in practically every intelligent community, ready to operate when the occasion arises. What a wealth of surgical knowledge! How great a benediction to humanity if properly supervised! How threatening a menace to society if commercialized or permitted to compromise with the idea, apparently gaining ground, that surgeons have a service which they should be permitted to market.

In 1914, Germany stood at the pinnacle of her national influence in the realm of

learning, militarism and economic equipment. German leaders in the government, in science, in religion, had become super-men. Out of the years of training required to bring her subjects into this enviable place among the peoples of the world, had been left that essential element which ever calls for conduct upon a basis of the Golden rule—the taking into account the rights of others. Guided by stalwart men with scientific minds, but with decadent hearts and neglected ideals, the liberties of the world were threatened by methods which, while receiving the plaudits of military critics, were outlawed by the common consent of wholesome mankind. High ideals and a moral integrity, born of the precepts and predicated upon the principles of the Christian religion won the war and turned back forever the threatening cloud of super-science, built around a lethargic heart which permitted the development of a spurious form of national eminence doomed to ignominious and speedy decay.

Surgery must be controlled by an attitude of personal responsibility for final results. Post-operative surveys and adequate follow-up systems will do much toward furnishing data with which the earnest surgeon will measure the efficacy of his work. In the light of final results, after psychic factors have had time to disappear, many apparent early cures are shown to be of evanescent nature.

We do well to remember that, as a profession, we are obligated to the public to render a service as free from mortality and morbidity as is humanly possible. That sick people need relief from their sufferings by the simplest methods applicable and that in many cases surgical attack may prove of graver menace than the disease. Ablation of mildly pathologic tissue will not appease the sick mind nor restore the unstable personality. An abdominal operation is fraught with grave potential dangers, both immediate and remote. It should be justified, when resorted to, by undisputed and tenable grounds. Lest we be led away on

scientific by-paths where operations for fanciful intestinal lesions, floating kidneys, plication and shortening of mesenteries and ligaments for the correction of prolapsed viscera and like procedures abound, justified may be by certain forms of loose thinking, but partaking surely of a type of scientific tinkering, let us recall that our patients depend upon us to protect them from the disappointing effects of questionable procedures while accepting our advice with respect to operations falling in the field made legitimate by common consent. If too often betrayed and left in the hands of unscrupulous men, can we blame them if faith in the efficacy of surgery wanes? Let us beware of a surgical science which fails to take into account the human element.

Factors that have Contributed to the Present Day View-point in Surgery

In seeking to explain the present day practice of surgery as applied to the abdomen, time permits only the mention of a few dominant causes. Of first importance no doubt, is faulty teaching in medical schools. The curriculum calls for instruction at the hands of men who specialize in the branch assigned them. Unconsciously, treatment is based upon the single view-point which loses account of the splendid advantage of correlation. Surgical teaching and demonstration are top-heavy. Essentials of diagnosis and medical treatment fail to hold the interest of the student while operations are at hand that may be witnessed. Note also the desire manifest in most students to follow the more spectacular, and perhaps more lucrative branches of medicine. It is easier to operate on the end results of disease than to diagnose and treat early manifestations. To the ambitious product of the present day medical school, contaminated by the toxins of a questionable under-par moral threshold, which seems to flourish in the home and college, the abdomen offers a fertile field for exploitation. Manipulations of viscera are under cover. To have an abdominal scar is popular. Many still have the appendix to which vague

symptoms may be ascribed, both real and fanciful. The stage is thus set for frequent violation. It is the order of the day by popular approval. Blame however, does not attach to the young surgeon alone. It's the atmosphere in which he is educated and the demands made upon him in the competitive field into which he goes after the interne days. Honest men fill the ranks of our profession, but even these follow as readily as their more easily persuaded brothers, the lead of those higher up in medicine who are perhaps unconsciously setting the popular pace.

Growing Re-action and Remedies

Reactions have ever followed in the train of wide excursions of thought in any department of learning. Already professional and public cognizance of the "will to operate" has been manifest. Medical schools have tried the all-time paid, teacher specialist in the clinical branches and have found the plan bad. The need for the practical view, which characterized the well-rounded medical teacher of the old school, who dealt personally with patients, is again evident. The better day in medical teaching has already dawned. However, public opinion now demands to know why surgery has become so common-place. Patients desire that assurance be given them that thorough pre-operative study is made and rightly inquire if medical management may not be intelligently tried with profit. Medical dogmas no longer resist the onslaught of the growing intelligence of the lay-public.

The remedy for these ills in surgery is obvious. Moral courage must abound. Operations in the abdomen and elsewhere of questionable nature must be condemned. Those who follow blindly the temptation to cut because 'tis safe if not necessary, must be called by an enlightened public opinion, to account for their conduct. Stress must be laid upon the necessity for painstaking search for the cause of symptoms, and better compensation be given the medical attendant who exercises preventive tactics, as a reward for his superior service. Distinction must be made between the mere

operator and the seasoned surgeon. We must learn that it requires greater courage to refuse to operate than is exemplified when surgery is chosen as a therapeutic measure. The worth-while surgeon earns his emolument, not by dexterous manipulation of tissue, which at best is a compromise measure, but by the application of that exquisite attribute known as surgical judgment.

When the profession and the public stop judging the surgeon's worth by the number of operations he performs and turns for an assessment of his entitlements to the principles which actuate his endeavors, there will be witnessed numerical reductions in many places where now the contest for numbers abound.

Radicalism vs. Conservatism

About the question of radical and conservative surgery, the battle still rages. Two view-points have ever held sway. How much shall be done and when shall he do it, are questions that constantly arise in the mind of the surgeon. If the malady be a tumor, surgical dictum prescribes its removal. Such an operation, although it be formidable, is not thought to be radical. If it concerns a diseased gall bladder, whose function has been destroyed by the inroads of a long existing infection, its excision is said by many to run counter to the practice of conservatism. To do an appendectomy may be conservative as it is simple, but falls in the radical class of operations when the real lesion proves by a persistence of symptoms to be elsewhere. It is conservative to spare one or a part of a cystic ovary, so say one school of surgeons, but it is radical surgery to operate at all when nothing more pathologic than cystic ovaries are diagnosed. Thus runs the ebb and flow of professional opinion. The question is not answered by compromise operations upon patients who receive little or no benefit although given the advantage of conservative procedure. In such cases, although conservatively dealt with, the patient is really the victim of radical attack. The clear indication for sur-

gery at all is SOMETHING DEFINITE TO DO which offers more than a reasonable hope of giving relief to the sufferer. When so justified, otherwise radical surgery is conservative in scope.

Is it not then rather a question of bringing to bear a fine preparation in the principles of differential diagnosis and a wide experience either of personal observation or apprenticeship under a master surgeon until an approved preparation brings the ability to discriminate between procedures of proper and improper application. If to be radical means thoroughness in the eradication of foci of disease regardless of the extent or multiplicity of operative procedures necessary of its accomplishment, it deserves our commendation. If to be conservative means to resort to operative procedures of only simple design because they are easy or safe, or possibly familiar to the attending surgeon, when by such compromise the real pathology is either overlooked or inadequately dealt with, it is to be vigorously condemned. The good surgeon is he who makes proper application of both view-points, yet never yields to the dangers of either extreme. His judgment is the final arbiter and dictates the choice of methods as well as their magnitude and number when the actual pathology is before him on the operating table.

Application of Principles to Abdominal Surgery

There are few parts of the human body that have not suffered from ill-advised operative attack. The abdomen however, due to certain inherent qualities which make even poor surgery reasonably safe, as well as to the great multiplicity of complaints which are lodged in this region, has suffered a heavier share of such abuse than has other sections.

Preventive surgery of the abdomen however, must take into account not alone the reduction in unnecessary operations which will follow the application of the principles above enunciated, but a more practical and

tangible consideration involving such subjects as early operation for appendiceal disease, gall bladder infection, ulcers of the stomach and duodenum, and like affections familiar to us all. We have long recognized that mortality in appendix cases comes from delay; likewise morbidity and invalidism follow after long neglect **permitting** infectious invasion of the biliary system and related viscera. Evidence is convincing that cancer of the stomach springs up as a late complication of chronic ulcer. In the early stages of all these and kindred abdominal diseases, surgery offers not only a safe means for relief, but prevents the terminal lesion so familiar to all physicians, which having fully developed, respond in unsatisfactory measure to operative attack, regardless of its extent or the skill exercised in its application.

There is a preventive surgery of the abdomen which sees terminal results and complications long before they have actually developed. To those in the profession, who by training and faithful application of the principles of a keen and discriminating diagnostic ability, are operating or recommending for operation, patients found to be suffering with such remedial conditions, the profession owes its unqualified endorsement. Preventive surgery may be summed up therefore as involving the necessity for clean-cut early diagnosis, which shifts the responsibility for its application to those who are first consulted usually the family physician. He is the pilot of the human book and on his shoulders blame lays a heavy hand when disastrous results occur in cases which would readily yield to an efficient initiative.

Late surgery must needs be radical, and by the very nature and extent of the diseased process being attacked, is followed by disappointing results. Maximum satisfaction and the minimum of surgical attack come in dealing with early surgical diseases, and conversely, maximum of surgical attack and minimum of satisfaction results follow in that group where operations are chosen as last resort measures.

The Role of Surgery in the Healing Art

That my message may not be misinterpreted, I wish here to re-state my firm and abiding faith in the efficacy of honest surgery. Its importance as an adjunct to the medical management of disease, no enlightened person will question. Its brilliant achievements have made the whole world its debtor, and countless thousands stand ready to testify to its healing ministrations. My thought then is to preserve its glory. Strength of character must characterize its followers. Earnestness and unquestioned integrity are its rightful handmaidens. The tissues touched by the surgeon's scalpel are sacred. His task is indeed essentially altruistic. To measure up to the demands made upon him require that he be no stranger to the humanities. A big heart, keen mind, skilled hand, all guided by a sense of responsibility for end results should be his definition.

Let us be content then to do the well-recognized operations, in number always sufficient to give us glory enough if perchance a less extravagant bank account. Why strive to widen the surgeon's field? Why not be content to let border line, questionable cases wait for clearer manifestations, or better refer them to the surgeons' best friend, the internist or medical practitioner who, in the light or rapidly advancing preventive medicine, may be able to salvage from the broken and bent body, many important organs which, if brought early under the surgeon's scalpel will be ruthlessly sacrificed.

There is sufficient latitude for honest endeavor in the legitimate field of surgery where no pangs of conscience or grim forebodings of criticism abound. Here are found no border-line diseases. Maladies are medical or surgical by common consent. In this field the services of the surgeon will receive wholehearted support. Out of his ministrations to this group of sufferers has been laid the foundations upon which a less elegant superstructure is in danger of being builded.

May we not say with Oliver Wendell Holmes, as we contemplate surgery's finished temple.

Build thee more stately mansions, O my
soul,
As the swift seasons roll.
Leave thy low-vaulted past.
Let each new temple, nobler than the last,
Shut thee from heaven with a dome more
vast,
Till thou at length art free,
Leaving thine outgrown shell by life's un-
resting sea.

SURGERY OF THE GALLBLADDER*

**B. T. Wise, M. D.,
Plains, Ga.**

In studying our cases of gallbladder disease we are often called upon to answer the question,—could it have been prevented? And, if so, how? Modern medicine has made it possible to eradicate certain diseases by means of sanitation and vaccination. We have reasons to believe that appendicitis and cholecystitis, as well as cancer and tuberculosis, are on the increase among civilized nations. In the light of darkness as to the cause of cancer drastic efforts towards education of the people on the early manifestations will result in fewer deaths from this malady. And, education of the people, together with enforcement of satisfactory laws of sanitation, will make it possible to reduce the annual mortality from tuberculosis. Our great science of medicine has not been found wanting in the past, and, will continue to work out the solutions of many of our problems. Should we be content in the knowledge that we are treating our cases of gallbladder disease satisfactorily, and make no effort to prevent its occurrence? I shall attempt in a brief way to show that it is possible to prevent stagnation of bile in the gallbladder, which is the first stage in the development of disease in that organ. Our modern methods of over-cooking and the preparation of foods that are consumed by the human family is an important factor in the causation of constipation. The foods pass along the intestines as a result of the normal physiological movement of the gut, being

greatly favored by gravity when the body is in the upright posture. On reaching the cecum the digestive process is completed, and the digested material is brought in contact with a large absorptive area where absorption of the liquids takes place. When the contents remain in the cecum too long most of the liquid is absorbed, leaving the residue more or less as a dried out, hard gummy mass. As a result of the stagnation of the food in the cecum there results a gradual stretching of the muscular fibres of the cecum which finally becomes a dilated pouch. The obstructing mass in the cecum causes a damming back of the foods in the small intestines and the stomach. Stagnation of foods in any part of the digestive tract will favor fermentation, putrefaction and inflammation. Putrefaction of food must necessarily increase the number of bacteria in the intestine. Normally the duodenum is free from bacteria, but when stasis of food occurs bacteria are present. These bacteria reach the gallbladder either directly through the ampulla of Vater and common bile duct, or by means of lymphatics, or through the portal circulation and the liver. Constipation, then, with its associated putrefaction and increase of bacteria, must be the primary focus of infection in most cases. Can constipation be relieved? In those cases of atony of the gut great good can be accomplished by the addition of plenty of laxative foods such as fresh ripe fruits, coarse vegetables, whole grain cereals, plenty of liquids, together with plenty of exercise, and mild laxatives. It is advisable to restrict highly protein foods, chiefly because of the tendency of such foods to putrefy. The results have been satisfactory in our cases where this plan has been carried out.

Constipation is present in about 80 per cent of all of our patients suffering with gallbladder disease, and causes many of the distressing symptoms both before and after operation. So, then, proper regulations of the diet and mild laxatives after surgical convalescence will add greatly to rapid relief from distress. It is possible to relieve many mild cases of gallbladder disease with-

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out gallstones by the adoption of this procedure.

However, when definite pathological changes have occurred in the gallbladder that are sufficient to jeopardize the life or to impair the health of the individual, surgical intervention should be resorted to. Whenever the diagnosis of gallbladder disease can be made with a reasonable degree of probability the patient should be given the benefit of surgical therapy, except in those cases in which advanced age or serious organic lesions would render surgical intervention hazardous and the risk unnecessary. In such cases medical treatment should be the procedure of choice. Fortunately, neoplasms of the gallbladder rather infrequently occur, but should be removed when possible. We have found only two malignant gallbladders at operation. In one case there was no history of previous gallstone colics, and no stones were present at operation. The patient died four months later. In the other case there was a history of frequent attacks of colic, and a single round stone about the size of an acorn was found in the cystic duct. This patient was operated on last September and has not shown evidence of any metastasis. Severe symptoms may occur in cases in which the degree of damage in the gallbladder may not be manifested. And, the surgeon, with the gallbladder under his eyes and his hand, is not always certain that the organ is diseased. The finding of adhesions of omentum or adjacent viscera to the gallbladder and the presence of enlarged lymphatic glands along the ducts (Mayo) will often clear up an uncertain pre-operative diagnosis.

Many years ago operations on the gallbladder consisted only of incision, removal of gallstones and temporary drainage of the organ. Many of those who survived were usually relieved of symptoms for a variable period of time and later experience

a return of symptoms. The removal of gallstones and drainage will result in permanent relief in many cases in which the infection has subsided. During the past decade the practice of most surgeons has been to do the more radical procedure of removal of the diseased gallbladder. Cholecystectomy is indicated in about ninety per cent of all cases of cholecystitis. Each case requires the most thoughtful surgical judgment. The procedure of choice between cholecystotomy or cholecystectomy must depend largely upon the condition of the individual patient.

When dealing with cases of acute cholecystitis the time for operative intervention can best be determined by a careful study of the clinical manifestations. In many instances it is better to tide the patient over the acute stage, and to postpone operation until the acute symptoms have subsided. Many surgeons have learned from experience that the best results can be obtained by postponing operation in all acute conditions of the abdomen when such conditions indicate that the infection has reached its height. However, in the acute fulminating types, in which the acute symptoms do not subside but rather tend toward an increase in severity, the better plan is not to postpone operation too long because of the danger of rupture of the gallbladder or possibly the extension of the infection into the liver or the pancreas. When operating on a very acutely sick person the first essential is to relieve pain, and the second is to save life. The procedure of choice in these cases should be cholecystotomy with drainage rather than attempt to do a brilliant operation, and possibly have to sign a death certificate a few days later. Results have been satisfactory in our cases in which we felt compelled to operate during the acute attack. When we have saved life we do not hesitate to advise the removal of the gallbladder in the future.

The presence of an inflamed or adherent appendix and its frequent association with gallbladder disease makes appendectomy al-

most a routine procedure in operations on the biliary tract.

Having decided to operate, the patient should be carefully prepared. We prefer to have our patients in bed in the hospital for two or three days on forced liquids, mild purgation and enemata, to thoroughly empty the colon. Daily intravenous administration of five c. c. of a ten per cent solution of calcium chloride for three days before operation in cases of jaundice is recommended by Walters of the Mayo Clinic.

A routine hypodermic of morphine sulphate, gr. 1/4, and atropine sulphate, gr. 1/150, is given one to two hours before operation. Ether, by open method, is the most popular anesthetic, since it affords complete relaxation of the abdominal muscles. The right rectus incision, beginning just to the right of the ensiform and carried downward and slightly outward, as recommended by Bevan, should be made long enough to afford free access to the field of operation, and especially to the biliary ducts. On opening the abdomen the biliary ducts are carefully explored, and should a stone be found in the common duct, it is opened, the stone removed, and a No. 6 soft rubber catheter, as recommended by Starr, is passed through the Ampulla of Vater into the duodenum. The long end of the catheter is brought outside of the abdominal incision for drainage. The stomach, duodenum, pancreas, liver, and appendix are also carefully examined, and are dealt with according to lesions found. If, when dealing with the gallbladder itself, we choose cholecystectomy, we expose and double clamp the cystic duct and artery as far from the common duct as possible in order to avoid injury to the common or hepatic duct. The cystic duct is divided between the clamps, and the gallbladder is dissected out towards the fundus. But, when the gallbladder walls are greatly thickened, and are surrounded by dense adhesions, and especially when these adhesions prevent free access to the cystic duct, the better procedure is to dissect the organ from the fundus down to

the cystic duct. The cystic artery should be securely ligated as hemorrhage has occurred from slipping of a carelessly ligated artery. Sometimes it is necessary to ligate both cystic duct and artery together, but when possible they should be ligated separately. The fissure in the liver from which the gallbladder was removed is drawn together by suturing the peritoneum on each side, or an omental graft is sutured into the fissure.

There is still much controversy on the question of abdominal drainage in cholecystectomies. We have practiced the use of a soft rubber tissue drain down to the stump of the cystic duct in a large percentage of our cases, and have not observed any bad results from the use of the drain. I am convinced that we owe the lives of some of our patients to the presence of the drainage tube.

In conclusion, I wish to recommend cholefections of the gallbladder, and cholecystotomy in the cases that are not favorable for cholecystectomy, and abdominal drainage in all cases in which infection is present or has been present recently.

TUBERCULOUS OBSTRUCTION OF THE DUODENUM*

(With Case Report)

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Abdominal tuberculosis is not infrequently seen in the city hospitals, but the case to be reported, that of tuberculous obstruction of the pylorus is the first to come under the observation of the writer. In 11069 admissions to the Emory Medical School division of the Grady Hospital this condition has not been diagnosed. Reference to current medical literature show it to be a rare

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

affection. This rarity therefore warrants the presentation of this case.

Pennington (1) quoting the autopsy investigations of Fenwick and Dodwell on 2000 phthisical subjects, gives 3.4 per cent as showing lesions in the duodenum, but does not mention the occurrence in the stomach. Brown (2) in 500 autopsies found the same percentage of duodenal involvement. He likewise makes no mention of the stomach. Broders (3) has made the most comprehensive review of the literature on this subject in recent years, and for further information reference should be made to his paper. He collected 306 cases which had been diagnosed tuberculosis of the stomach. Of this number he concluded that 49 were positive, and 118 probable cases of tuberculosis of the stomach. The positive diagnoses were made on a good gross description of the pathology, the presence of the histo-pathology of tuberculosis, and the finding of the bacilli in the tissues involved. The probable cases were those which had a good gross description, and the histo-pathological picture of tuberculosis. Those not conforming to the above requirements were rejected.

Broders classifies the lesions into 6 types, as follows: 1, ulcer either single or multiple, 2, miliary tubercles, which are seen in general miliary tuberculosis; 3, solitary tubercle; 4, pyloric stenosis, of which there are 2 types, the true when the lesion is in the gut, and the false where the pressure of the peri-pyloric glands produce the obstruction; 5, tumor or nodule; 6, lymphangitis.

Considering the fact that pulmonary tuberculosis is relatively frequent, and that bacilli are swallowed in large numbers which pass through the alimentary tract without local damage, it is properly concluded that the stomach enjoys considerable immunity. It is true however that in respiratory tuberculosis, gastric symptoms are often noted, and gastritis is frequent, the stomach is free from this infection. The factors in this immunity are, 1st, an intact

mucus membrane; 2, the free motility of the stomach. It being a well established fact that the disease is more prone to occur in the more stagnant areas of the alimentary tract, such as the ilio-cecal region. 3, Then action of the gastric juice through it only attenuates after prolonged immersion in the bacilli in it. 4, According to Virchow to the scarcity of lymphatics in the stomach wall. Many experimenters have tried to produce tuberculous ulcers in animals, in the main with negative results. Arloing (4) used 30 animals and employed the following methods. The introduction of the bacilli through a gastric fistula and inoculation into the mucus membrane with mechanical irritation. The results were negative. Next the inter-vascular injection was used on 4 animals with one tuberculous ulcer being produced in the duodenum. In the third series, interstitial inoculations were employed with 2 tuberculous ulcers resulting.

Primary gastric tuberculosis is very rare, there being, according to Broders 4 cases, which the reporters claim the lesion to have originated in the stomach. However with one exception the others of extensive tuberculosis are elsewhere Van Warts' case was one of solitary tubercle, and he was unable to find any tuberculous process in any other part of the body. This is the only case for which any claim can be made for primary gastric tuberculosis, and this patient had pleuritis, pericarditis, and peritonitis, though microscopically these last named conditions were non tuberculous.

The case to report is as follows: L. M., Male, col. age 27, occupation, Ry. truck hand, admitted to hospital first time, May 4, 1923. C. C. pain in epigastrium, and heart burn after eating. Past history; malaria age 18, influenza 1919. No complications. Gonorrhoea 1922, treated and supposedly cured. Present illness; two years ago began to have burning in chest and upper abdomen after eating, worse after eating supper. This was soon followed by pain in epigastrium coming on

one hour after meals. These symptoms have gradually increased. Finally the pain and fullness in epigastrium was so severe that he would gag himself in order to vomit for relief. The past 3 weeks vomiting has been present without being forced. Although he is on a restricted diet, mostly soups, he has to vomit twice daily. He has slowly lost flesh and strength.

The outstanding feature in the physical examination, was emaciation. The heart and lungs were normal. There was marked tenderness in the epigastrium. Pressure over this area caused referred pain to the back. There was tenderness to moderate pressure over McBurney's point. Abdomen slightly distended. No masses could be felt. Abdominal examination otherwise negative. Pyorrhoea alveolaris present. Blood pressure 105-80. Genito-urinary system negative. No gross or occult blood present in feces. The blood showed only a secondary anemia. Blood Wasserman 2 plus positive. Gastro-intestinal X-ray studies show an unusual large bulbous stomach, with considerable dilatation which is noted in pylorus and first portion of duodenum. The duodenal cap cannot be outlined. Six hour plate shows 50 per cent retention. All findings are indicative of partial obstruction in duodenum, and suggestive of a lesion in this area.

He was operated on June 5, 1923, by another surgeon who was of the opinion that the trouble was a pylorospasm due to a chronic appendix. A long right rectus incision being made in order to inspect the upper abdomen. The pyloric region was reported free from any gross pathology. An appendectomy only was done. The laboratory reported a proliferative inflammation of the appendix. He left the hospital 15 days later.

While some temporary improvement was noted after the appendectomy not much time elapsed until his condition became worse than before the operation. There was further loss of weight, and an exacerbation of the symptoms, which compelled him to

seek admission again to the hospital, October 4, 1923. He said he weighed only 72 pounds (normal was 135). The pain, heartburn, nausea, and vomiting were more marked.

The only things of interest in this examination were a slight tumefaction in epigastrium above and slightly to left of umbilicus, and moderate muscular rigidity over this area. X-ray of the stomach showed marked dilatation, extending to crest of ilium, with obstruction at the pylorus almost complete. Practically all the barium remaining in the stomach at the end of 6 hours.

The clinical diagnosis was ulcer of the pylorus with perhaps malignant degeneration.

A posterior gastro-enterostomy was done October 13, 1923, for the purpose of relieving his obstruction.

The following pathology was found at operation; marked dilatation of the stomach. Pylorus only slightly movable. A mass of glands surround the pylorus, but cause no obstructive pressure. In the anterior duodenal wall in the first portion there was a nodule about the size of a small English walnut. The whole first portion of the duodenum and pylorus was thickened. The glands along the right third of the greater curvature of the stomach were enlarged. The largest being about the size of an egg. No tubercles on the adjacent viscera were noted. Two glands were removed from the greater curvature of the stomach for microscopical study. The operative diagnosis was that of carcinoma of the duodenum and pylorus.

Dr. G. B. Adams, Prof. Pathology, Emory University, made the report that the tissue was tuberculous. His report is appended.

I believe it is fair to assume that the lesion being in the duodenum and pylorus, produced the obstruction, and as the glands were definitely tuberculous that this is a true case of pyloric and duodenal tuberculosis.

Realizing that there must have been a focus some where, the lungs were studied after the last operation by Dr. R. H. Oppen-

heimer, who made the physical examination and by Dr. J. J. Clark. They found no pulmonary tuberculosis. No other tuberculous focus could be found.

When last seen, April 25, 1924, he had gained 76 pounds in weight, and was able to eat any kind of food without discomfort. He is a porter on a passenger train making his regular trips of 339 miles.

CARCINOMA OF PANCREAS IN THIRD AND EIGHTH DECADES*

**C. D. Ward, M. D.,
and**

**R. H. Chaney, M. D.,
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Carcinoma of the pancreas is usually regarded as one of the rarer forms of malignancy, a fact indicated by Cantlie finding only fifteen primary cases in 4,100 necropsies at Charring Cross Hospital and by Segre finding only 127 cases in 11,472 necropsies. Likewise Osler and McCrae believe it occurs only once in every 60 malignancies. In view of the rarity of the lesion we are reporting two cases recently observed, the first unique in that it occurred early in the third decade of life and though the lesion was suspected it could only be proved by microscopic diagnosis following necropsy.

The difficulty in diagnosis of carcinoma of the pancreas is presented by Eusterman who notes particularly the difficulty in those cases where jaundice is absent nevertheless calling attention to the importance of the diagnosis in these cases because of the importance of the pancreas as a digestive organ. Chauffard first outlined the typical syndrome occurring in the disease in 1908, namely, digestive disturbances, deepening jaundice, loss of strength and weight, associated distention of the gall bladder and progressive pain in individuals beyond middle age. He stressed the pain element indicating it to be more marked when the body of the organ was involved. Generally the pain starts in the left costal margin moving into the epigastrium, is deeply seated and

frequently paroxysmal having a corset sensation closely resembling tabetic crises.

The dominating symptom of cancer of the pancreas is practically indeterminable as instanced by Mussey's series in which pain appeared as the most dominant in 44 per cent though existing in 88 per cent, while Speed's series showed cachexia to be the most dominant occurring in practically 100 per cent. Jaundice as a cardinal symptom is variable, Speed reporting it present in 80 per cent on admission, Mussey reporting it in only 21 per cent tho existing in 41 per cent and Eusterman noting it to exist in 46 per cent. Pain Speed notes occurring in only 61 per cent while Mussey found it present in 88 per cent.

Jaundice plays a marked role in making a positive preoperative diagnosis, when it exists Eusterman reports a primary cancer or malignant obstructive diagnosis in all cases, while in cases where it is absent the primary diagnosis could only be made in approximately 30 per cent, the other erroneous diagnoses including aneurysm, tumor of colon, chronic cholecystitis, intestinal obstruction and the like. Lesion of the head of the organ is not always associated with jaundice, Eusterman reporting eleven cases having lesion of the head in which jaundice was absent, though Gallaudet in a recently reported case notes the rarity of lesions of the head of the organ in the absence of jaundice.

Ascites occurs in 20 per cent of cases according to Speed, while Andrews has recently noted a case involving the head and body of the organ in which the dominant symptom was persistent chylous ascites, this type of fluid being found on repeated aspirations over a period of four months prior to death.

Eusterman has indicated the difficulty in diagnosis of lesions of the pancreas in the absence of jaundice from which we may deduce that roentgenological examination gives but indirect aid. This is supported by Scholz and Pfeiffer who note the rarity of proper clinical diagnosis and indicate that the roentgenological examination only gives indirect evidence in the form of distortions

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of neighboring organs. Thus cancer of the head of the organ may produce outward bulging of the duodenum, cancer of the body may produce defects in the body of the stomach or colon, while cancer of the tail usually produces defects in the upper or middle portion of the stomach. Where an associated jaundice exists the interpretation is more accurate, Speed reporting a positive roentgenological diagnosis in 21 out of 23 cases in which gastroenteric X-ray studies were made.

Clinical tests for excess of fat or changes in pancreatic digestion play practically no part in the diagnosis, McClure and Pratt showing the diastatic activity of the urine and feces to have but little value and then only when present in large quantities, even in which instance it is only suggestive. Glycosuria according to Braunstein is relatively rare, not being present in nine cases observed by him during the past ten years. He also notes that in the presence of cancer associated with diabetes that the glycosuria may disappear, this being due he believes to the glycolytic activity on the part of the cancer cells, a process similar to that manifested by degenerating leucocytes in diabetic pneumonia where the glycosuria frequently disappears during the height of the disease though its absence indicates no improvement in the course of the diabetes.

Metastasis from cancer of the pancreas is usually first to adjacent glands, then to the gall duct areas and later to the liver. Recently Adams has shown in a study of eight cases that metastasis occurred by the blood stream in six instances, distant areas such as the brain being involved. Direct extension to neighboring organs is very frequent usually occurring in the form of ulceration. Ulceration into the duodenum occurred in one of our cases. Adler showed it to occur in six out of eleven cases studied, while in Gallaudet's case the invasion of the duodenum caused obstruction. The ulceration or invasion may strike any structure, the duodenum, stomach, colon, ileum and gall bladder having all been noted as the site of invasion.

The average age of incidence of carcinoma

of the pancreas is approximately 57 years, the usual variation extending from 35 to 76 years. Only a few cases have been reported below this lower limit. Speed records that Herringham found one case in a child of two years. Bourke reports one case occurring at 22 and Gallaudet records one at 28. In addition to the case we are presenting these are all the cases we have noted occurring under 30 years of age.

Case 1. A. G., colored female, age 23 years (U. H. 31270) was admitted to the hospital on August 7th, 1923, giving "gall stones" as her chief complaint. In March, 1923, she suddenly was seized with a sharp stabbing pain through the right side of the chest which soon localized in the upper right abdomen. This pain forced her to bed and was followed by nausea, vomiting and fever for 24 to 48 hours. Following this acute attack she had less severe intermittent pain of sharp cutting character starting in the epigastrium continuing through to the back between her shoulders. This was much worse at night, often preventing sleep. Her appetite continued good but she was unable to tolerate her food, its intake producing nausea followed frequently by vomiting. Shortly after the onset of her illness in March she noted some yellowing in her eyes, but this did not become marked until three weeks before admission at which time she noted that her stools were white in character. For some time indefinite in duration she has felt a "knot" in her upper right abdomen. There has been a gradual but marked loss of strength and weight. Headache has been constant and severe. Her past history was negative save for two attacks of malaria and the diseases of childhood. She was single and has always done hard farm work. On admission the patient was deeply jaundiced, markedly emaciated and dehydrated. Her tongue was coated. The chest showed a definite flare below the third right interspace, and dullness was present below the fourth rib in front and the sixth posteriorly with compression signs in the lung above. Her heart showed left displacement. The abdomen was distended on the right, the liver extended to 10 cm.

below the costal margin and showed downward prolongation to the right of the umbilicus. Laboratory findings indicated a urine normal save for excessive bile and a few red cells; a kidney function of 45 per cent; a marked secondary anemia; a stool containing undigested fat, absent bile, but no blood. X-ray showed an enlarged liver with a pear shaped mass in the gall bladder region pushing the transverse colon downward.

A preoperative diagnosis of common duct obstruction due to stone was made and exploration advised. In view of the work of Walters, in spite of a low coagulation time calcium chloride was given intravenously just before and 12 hours prior to operation. Through a Bevan gall bladder incision under ether anaesthesia, a markedly distended gall bladder which would not empty was exposed. The liver presented a mottled, cloudly appearance having many pea sized non-elevated softened areas uniformly over its surface. The common duct was as large as the index finger extending into a hard, stoney mass in the head of the pancreas. Cholecyst-gastrostomy was performed, the patient returning to the ward in good condition. In view of the age of the patient the diagnosis was made of chronic fibrosis of the pancreas, though the same lesion in an aged person would have been called carcinoma.

The patient roused from the anaesthetic and dropped into normal sleep and at 3 P. M. on the afternoon of operation she appeared excellent, but an hour later she lapsed into a quiet stupor from which she could not be roused, dying 45 minutes later.

At autopsy (Dr. Lamar) the operative site was found intact, the liver showed marked softening with multiple areas of necrobiotic change. The head of the pancreas encircled the common duct completely obstructing it for a distance of 10 cm. The pancreas was very firm, not nodular, the cut surface showing apparently only an increase in fibrous tissue and only after study of microscopic sections did the carcinomatous process become evident.

Case II. P. M., white male aged 71 years

(U. H. 32000; 32737) was admitted to hospital on October 7th, 1923, complaining of weakness, intense general itching and jaundice. He stated that during the last week in August he began to notice intense itching followed shortly after by jaundice which progressively became worse. His appetite remained good but he rapidly lost weight and strength. On admission he was a well developed, markedly emaciated old man. Aside from the general deep jaundice physical examination was negative save for the abdominal findings. This was moderately distended, the liver reaching below the costal margin and from the gall bladder area a large pear shaped tumor extended to below the umbilicus. His blood showed a moderate secondary anemia; his urine a few hyaline casts, a trace of albumin and abundance of bile; his kidney function was 50 per cent. The gastric meal showed 9 per cent free acid with a total of 30 per cent. His stool was clay colored contained no bile but much free fat. The X-ray examination showed a hyper-active stomach with a filling defect in the pars media, due according to the report to some extrinsic tumor. A preoperative diagnosis of common duct obstruction due to carcinoma of the head of the pancreas was made.

At operation on the 16th of October, the gall bladder was found enlarged, the liver was not enlarged but showed a diffuse mottled cirrhosis, the head of the pancreas was firm, nodular, the common duct being distended and apparently entering directly into the tumor. Due to the poor condition of the patient simple cholecystostomy was performed. Convalescence was uneventful, the jaundice disappearing in about four weeks, the patient being discharged on the 20th of November with a permanent biliary drainage tube.

Following his discharge from the hospital the patient improved for a couple of weeks and then began to show digestive disturbances due we thought to lack of bile. Also the necessity of constantly having to wear a container to collect the bile from the external fistula worried the patient and he insisted that if possible provision should be

made for it to empty internally. He was readmitted to the hospital on the 9th of December. Nine days later under ether anaesthesia, the patient refusing regional, the old sinus was explored the gall bladder mobilized partially and a cholecyst-gastrostomy performed, no attempt being made to explore the tumor. Following the operation the patient rallied and improved steadily until the seventh day, when without warning he sprang a gastric fistula through the upper angle of his wound. From this time he steadily declined and died from apparent inanition on the 28th of December. At autopsy (Dr. Pund) a cicatricial sinus was found leading to the anterior edge of the anastomosis between the stomach and gall bladder. Aside from firm adhesions about the operative area no evidence of peritonitis existed. In the second portion of the duodenum there was a firm circular constriction, the duodenal wall being encircled and bound to the pancreas producing a stenosis of the duodenal lumen. In this area the duodenal mucosa was still intact but all the other coats were incorporated in the tumor springing from the pancreas. The tumor showed a marked proliferation of irregular glandular elements invading the duodenum and adjacent structures. The pancreatic and common ducts were completely obstructed. The liver showed a general diffuse cloudy swelling more or less completely obscuring the cell outlines super-imposed on a general cirrhosis.

These two cases represent the two great clinical groups of pancreatic carcinoma, the first with pain as the predominating symptom, the second having cachexia most dominant. Both show definitely the degree of destruction which occurs in the liver following any common duct obstruction of long duration, in fact, in the first case these changes were so marked that following study of the sections it was impossible to conceive how this structure could ever have regained its function.

Both cases markedly illustrate the difficulty of even palliative surgery when the process is advanced. In the second case it is only problematical as to what could have

been accomplished if the duodenal stenosis had been recognized at the time of the second operation, in as much as the ultimate outcome was apparent from the very start.

Our plea in presenting these cases is to stress the fact that the disease strikes early as well as late adult life; to stress the need of early interference if palliation or possible cure is to be obtained in malignant or obstructive lesions of the common duct. This demands early recognition which is only possible when we regard persisting jaundice, persisting boring epigastric pain as serious indications not to be passed over without complete and careful study.

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CANCER OF THE SMALL INTESTINE*

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The comparative rarity of carcinoma of the small intestine has prompted the report of a case involving the ileum, and a review of statistics regarding its incidence and the symptomatology as observed in some of those cases reported in the literature.

Cancer of the small intestine is said to comprise about 3 per cent of such growths involving the intestinal tract. The combined statistics of Nothnagel, taken from the autopsy records of the Vienna Pathologic Institute for twenty-three years (1870-1893), and those of Muller, from Basel for thirty years (1874-1904), show that in 53,152 autopsies there were 4,494 cases of cancer. Of this number 466 were intestinal, and 25 had their location in the small intestine—

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

13 in the duodenum and 12 in the ileum. Of the remainder 228 were in the colon, and 213 in the rectum. Hedlund collected from the literature 658 cases of intestinal cancer, and Lichtenstein 770, making a total of 1428. Of this number 39 were in the duodenum, 38 were in the remainder of the small intestine, 3 in the appendix, 416 in the large intestine, and 923 in the rectum.

The records from the Mayo Clinic since 1907 reveal that 4,684 patients have been operated for cancer of the gastro-intestinal tract. The stomach was involved 2,554 times, the small intestine 36, colon 362, caecum 135, recto-sigmoid 377, sigmoid 293, and the rectum 937.

Up to within recent years records of the incidence of small intestinal cancer were based almost wholly upon autopsy findings but of late with the employment of some of the newer aids to diagnosis, particularly the Roentgen ray, and exploration in obscure and otherwise inexplicable symptoms, a larger number of cases are discovered during life and appropriate therapy instituted.

The records both from autopsy and operating rooms generally agree that the duodenum is more frequently involved than either of the two remaining portions of the small intestine. Bland-Sutton states that the nearer one approaches the beginning and ending of the small gut the more frequently one finds cancer located and that such a growth involving the mid-portion becomes very rare. Of 26 cases recorded by Nothnagel, Maydl and Muller 13 were in the duodenum, and 13 were distributed throughout the jejunum and ileum. In 1919, Judd reported 24 cases of carcinoma of the small intestine that came to operation; 5 were in the duodenum, 11 involved the jejunum, 6 were found in the ileum, and in two cases there were multiple growths involving different portions of the small intestine. Craig states that the findings of fewer duodenal cases in this series is believed to be due to the fact that these 24 patients came in for treatment.

The average age of incidence is about 46½ years. One case of scirrhus has been

reported by Duncan occurring in a child of 3½ years.

The rarity of carcinoma of the small intestine as compared with other portions of the gastro-intestinal tract is difficult to explain. The absence of acute bends and flexures, the fluid nature of the contents, and the ancientness of this structure, are some of the reasons advanced. In this connection might be mentioned the observation of Birsch-Hirschfeld of the association of adhesive bands at the point of origin of some intestinal carcinoma.

Ewing states that cancer when originating in the small intestine occurs in three distinct forms: (1) a part of a local or general intestinal polyposis, (2) a late development of single or multiple carcinoid tumors, and (3) as a localized adeno-carcinoma with carcinomatous varieties in structure.

Just how long a patient may harbor a cancer in the small intestine before it attains such size or position as to give rise to symptoms is wholly a matter of conjecture. It would be impossible to describe all of the signs that might arise in a condition with such diverse possibilities, and one which could present a picture of such variability as to symptomatology.

Occasionally the presence of blood in macroscopic, microscopic and occult amounts may be one of the earliest symptoms, due to tumor ulceration. However, in the reported cases not much stress has been placed upon this finding. If the growth involves the duodenum and upper part of the jejunum the symptoms will not vary greatly from those observed in pyloric obstruction, except that in cancer of the duodenum and upper part of the jejunum the amount vomited is greater than that seen in pyloric obstruction, is far in excess of the material ingested, and is usually bile-stained. When the papilla of Vater is involved there is usually added the symptom of painless jaundice.

When the growth is located further down in the jejunum and in the ileum the occurrence of inexplicable colicky pains is probably one of the earliest subjective sensations

which causes the patient to seek professional advice. In some of those observed the patient stated that gas would reach a certain point in its onward passage and then the pain would occur, but as soon as it passed, usually accompanied by an audible sound that could be heard by the physician, the discomfort would cease temporarily. This symptom was most noticeable in the case to be reported and the symptom that made suspicious the existence of obstruction. Some patients associate the attacks of pain with food intake while others could see no such relationship. The location of the pain is not characteristic but is usually referred to the region of the umbilicus. However, it may be described as being changeable and anywhere within the abdomen. It is not rare to be able to find a point of tenderness over the seat of the pain but the finding of a tumor mass is not to be expected in the early stages, according to those of more extended experience. The uncharacteristic type of colicky attacks may lead to the suspicion of almost any intra-abdominal complaint; appendicitis, cholecystitis, intestinal obstruction, kidney and ureteral colic, etc. One case is recalled that was seen for another physician during his absence from the city where two of us thought surely that the attacks were due to kidney or ureteral colic. Our opinion was strengthened as to the correctness of our view by the urinary findings, and the knowledge that just a few months previously the patient's abdomen had been opened. Some weeks later she was again operated and a cancer obstructing the small intestine found.

The frequency of the attacks of pain is quite variable, as sometimes a few days, a week, or longer may elapse before they recur. The discomfort is due to the efforts of the intestinal walls to propel its contents onward against a gradually increasing encroachment upon its lumen by the growth. If the obstruction proceeds slowly time may be allowed for a compensatory hypertrophy of the proximal loops, and its movements may be visible and palpable. As the intestinal canal becomes more and more narrowed the pains become more frequent and severe.

Neusea and vomiting have not been observed as an early symptom and is only to be expected in the later stages. Likewise the attacks are afebrile.

All observers are agreed that too much time must not be spent in a search for signs and symptoms which would lead one to make a certain diagnosis but that the closest co-operation between the internist and radiologist should be had once the probability of a growth in the intestinal wall has been suspected. Given a case of inexplicable, recurring, colicky pain in the abdomen which is not amenable to judicious catharsis and a properly regulated diet, is afebrile, be the pain localized or general, it would seem that a thorough X-ray study of the gastro-intestinal tract would be the best means of aiding to a more correct diagnosis.

Once a cancer of the small intestine has been diagnosed, or suspected, the patient should be operated, and the growth removed as radically as the circumstances will permit. When the papilla of Vater is involved it is rarely possible to do a resection and of those cases reported some palliative procedure to allow the bile and stomach contents to enter the small intestine was all that could be accomplished. In those irremovable growths involving the jejunum and ileum the treatment of which has had as its basis some surgical procedure whereby the tumor was excluded from the flow of intestinal contents the results have been good, so far as recovery from operation, the maintenance of life for a brief period and the relief from obstructive symptoms. Fortunately in the majority of instances of jejunal and ileal growths it has been possible to resect the tumor with the mesentery and glands, accompanied by a lateral anastomosis, as the proximal loop is generally so much larger than the distal that an end to end anastomosis is out of the question.

It is said that cancer of the small intestine has not the tendency to metastasize as cancer in other parts of the body but Craig found glandular involvement in 23 of 36 cases. From the after history of the majority of the cases the outlook for recovery from the disease does not appear so promis-

ing but with earlier recognition the hope of ultimate cure may be brighter.

Mrs. J. age 60. Her family and past medical histories were negative, except for "bilious attacks" from time to time some thirty years previously. She was the mother of five healthy, living children—all of her labors were normal, and the convalescences without untoward incident. She had had no miscarriages. Just a few weeks previous to my first visit to her she had a moderately severe attack of influenza from which she had recovered.

I was first consulted on December 4th, 1922, for quite severe, cramp-like pains in the upper left abdominal quadrant. So far as she could recall this was the first symptom noticed. As the patient described it "the gas in the intestines seemed to get to a certain point and could go no further along then the pain would come but as soon as a noise like the passing of gas occurred the discomfort was temporarily relieved." No nausea or vomiting had been present, the temperature, pulse and respiration were normal, the bowels had moved well that day and the days previously, blood had never been seen in the stools, gas had passed freely, and no tumor, rigidity or tenderness could be found. As the patient seemed to be in great distress, and in the absence of any signs of acute inflammatory or obstructive lesion within the abdomen $\frac{1}{6}$ grain of morphine sulphate was given hypodermically. The patient was soon relieved, and she was cautioned to inform me should the symptoms recur. Nothing further was heard for one week, when I was again called and found practically the same clinical picture. At the first visit the passage of gas was inaudible, but was distinctly heard as I sat by the bedside at this second visit.

When first called the presence of some obstructive lesion as the cause of the symptoms was suspected, and when I saw the patient the second time was more convinced of such probability. Immediately efforts were made to get her to consent to hospital observation and X-ray study, which she persistently declined to do until the frequency and severity of the attacks practically

forced it upon her. She entered the University Hospital December 24th, 1922, Case No. 28509.

The physical examination at the hospital disclosed no abnormality or symptoms referable to any organ except a short, stout woman with a somewhat weakened myocardium and the intermittent abdominal pains already noted. The systolic blood pressure remained constantly around 160 and the diastolic 90. There was nothing unusual in the blood-picture, and the phenolsulphone-phthalein test showed the kidneys eliminating 45 per cent of the dye.

Gastric analysis following the usual test meal revealed: free hydrochloric acid 43 per cent, combined acids 30 and a total acidity of 73.

On the 25th and 26th of December an X-ray study of the gastro-intestinal tract was done, and Dr. Holmes reported as follows: "One glass only of barium water could be given. The stomach borders fill out fairly well and show a rather hyperactive stomach. The duodenal cap points out and down, and the duodenum circles out to the right and inwards to the spine. In the circle there is an accessory pocket, which in the recumbent position appears to have a neck to the duodenum. Impression: Perforating duodenal ulcer or diverticulum.

"4½ hours retention of $\frac{1}{6}$ of stomach contents. 24 hours slight retention in the stomach and jejunum. The head of the column had never reached the caecum.

"Impression: Chronic obstruction of the small intestine, probably from fibrous bands.

"Barium enema shows the large bowel to be unobstructed."

With this report from the roentgenologist and the increasing severity of the symptoms of some obstruction, probably in the ileum, operation was urged. As the patient and family demurred Drs. C. W. Crane and R. L. Cheney were asked to give their opinions. Both agreed as to the advisability of exploration. Finally consent was given and on December 29th Dr. Crane and I opened the abdomen under ether through a right rectus incision with the pre-operative diagnosis of intestinal obstruction, as it was not

believed that the X-ray findings around the duodenum had any bearing upon the present symptomatology. Immediately the peritoneum was opened a large mass encircling the ileum at about its mid-point was delivered, and as its gross appearance denoted cancer a resection was decided upon. No enlarged glands or metastases could be found, but together with the growth a fan-shaped section of mesentery was removed, and a lateral anastomosis done, as it would have been impossible to have united the collapsed distal segment with the hypertrophoid and dilated proximal loop end to end. An examination of the upper abdomen was done but no gross pathology found. The abdomen was closed. The operation consumed one hour and twenty minutes, and the patient left the table in good condition.

The same night her cardio-vascular system gave way and she died the following day.

The report which Dr. R. V. Lamar, the pathologist sent in was: Adeno-carcinoma, extensive superficial and central ulceration. Infiltration through musculature into serosa with much accompanying fibrosis. One small lenticular metastasis in much thickened serosa 3 to 4 c. m. distant from the primary growth."

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POST-OPERATIVE DEHYDRATION*

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We have been accustomed to recognize dehydration in terms of terminal symptomatology and this being true the important problem becomes one of prevention rather than treatment because positive dehydration is one of the phenomena of advanced conditions of toxemia, etc., bordering on a fatal issue. So only routine methods can be depended on to anticipate the development of these grave symptoms. It is our belief that the importance of early application of the methods of hydration in serious cases has not been fully appreciated.

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The normal water balance of the animal organism remains fairly constant despite wide variations of environmental conditions but under diseased conditions the balance becomes more easily disturbed in the development of a greater need for water for dilution and elimination of toxins and for this reason forcing fluids becomes a rational procedure.

While the phenomena of dehydration occurs more frequently in general diseases such as pneumonia, typhoid fever, infantile diarrhoea, etc., it has a practical bearing on certain surgical conditions more especially in diseases of organs concerned in the absorption of fluids and in a great per cent of fatal diseases this phenomenon is an important ally of infections in producing intensification of all forms of toxemia.

Water is the railway carrier of metabolic commerce and research studies of water metabolism give us important suggestions for clinical application but it is not to be understood that dehydration is condition per se to be treated independently but as an associated phenomenon of toxemia that warrants more frequent recognition. Certain general statements herein made are based on a review of two articles appearing in "Physiological Review," reprints¹ of which having been kindly furnished by the authors.

Experimentation has demonstrated that a diminution of ten per cent of the water content of the body results in serious disorders and this reduction carried to twenty per cent results in death, while the animal may lose all of his glycogen and fat and half of the protein content, aggregating forty per cent of the entire weight and yet live. If these observations obtain under normal conditions, such reductions of the water content would be more disastrous in disease where proportionately greater need of water exists.

The fact that little or no water is absorbed in the stomach should be borne in mind. So for practical purposes, the intestines and

especially the colon constitute the dependable avenue for water intake. A clinical demonstration of this truth may be found in cases of fecal fistulae in the small intestines in which emaciation and dehydration may be marked yet the intake has been great. It is interesting to note that fluid content for the time being of the intestines may exceed that taken by the mouth because of the inpour of certain secretions from water evolved in certain metabolic processes. So the system may use its water over and over again and so long as intestinal fluids can pass the ileocecal valve there is little danger of dehydration even though the intake of fluids by mouth be negligible. While the duration of starvation varies as to certain conditions usually from a few to ten days, life will not be materially prolonged by the intake of dry food, but when water is given freely death may be postponed for as long as 40 or 50 days. The dangers of blood concentration are to be considered as a result of loss of fluids. This phenomenon may also result from extensive burns of skin surface, shock, etc., and from over-use of purgatives and chronic diarrhoeas in which the hemoglobin may show increase. On the other hand a low percentage (25 per cent) of hemoglobin may hinder appropriation of a fluid intake. This condition requires transfusion to bring about the assimilation of saline fluids injected. After hemorrhages, however, fluids that increase the blood volume seem to increase the number of blood cells. The introduction of fluids may either increase the volume of blood to greater efficiency for circulation thus promoting richness of vital elements as indicated by a rise of the percentage of hemoglobin or else there may be a dilution to the extent of lowering the hemoglobin index.

In shock saline infusions intravenously transude the tissues without increasing the blood volume but this result does not happen when absorption takes place by other avenues such as mouth, rectum, subcutaneously and intraperitoneally. In diseased conditions dehydration becomes a relative term in creating a greater need of water for the

1. "The Water Balance of the Body" by L. G. Rowntree, *Physiological Reviews*, Vol. II, No. 1, January, 1922, and "Anhydremia" by W. McKim Marriott in *Physiological Reviews*, Vol. III, No. 2, April, 1923.

purpose of diluting and eliminating toxic products and this need assumes greater importance directly and indirectly in diseases within the abdomen.

Our observations shall in the main refer to the management of peritonitis because of the frequency of this disease and the overlooked importance of methods of hydration. During a fourteen year period of our work in which were recorded 8429 general operations there were 2033 abdominal operations in which 58 per cent of total deaths arose from the acute abdomen. The mechanics of peritonitis bring about an interruption of the process of absorption of fluids in the intestines by hindering peristalsis through more or less destruction of the smooth surfaces of the peritoneum and as a result stagnation favors the absorption of toxin both within and without the intestines. So peritonitis would be less disastrous in its effects if there were no adhesions formed to hinder normal peristalsis. As it is, however, a violent degree of auto-toxication is developed from toxins in the mucous membranes of obstructed intestines augmented by dehydration of the tissues by reverse osmosis. This mechanical burden forces the necessity of reverse peristalsis with its consequent burdens of toxic materials. After a blocked bowel whether from peritonitis or ileus the dehydrated tissues are no longer able to furnish fluids to combat toxemia as well as fluids for lubricating the peritoneum.

The great advance in the treatment of peritonitis has been won by early operation for prevention and after development, removing the focus of infection with drainage and then resort to the Oschner-Murphy technique of washing out and starving the stomach and forcing fluids per rectum using morphine as an aid to the treatment with the Fowler posture for drainage. Post operative vomiting should be looked upon with serious concern as robbing the system of fluids, more especially where there is interference with the peristaltic wave.

In our enthusiasm for improved surgical technique we have lost sight of the value of this time honored method of treatment.

It has been our observation that simple laparotomies for early infections have occasionally been followed by an unexpected death from peritonitis not knowing the virulence of the infection. But for the past three years we have made it a rule to treat laparotomy that applied a drainage as a case of peritonitis and the element of surprise mortality has been eliminated.

Fortunately in the great majority of elective laparotomies there are no hazards to be reckoned with that will draw on the vital reserves of the patient's fluids. While there is need of empty intestines for the sake of anesthesia as well as post operative comfort, simple laxatives before operation should not be carried to the extent of disturbing the normal water balance and fluids should be given freely until four hours before operation and in any case of sepsis involving other regions of the body than the peritoneum, fluids by mouth should be urged.

Forcing fluids in cases of prostatic obstruction which has been drained, overcomes the damage to the kidneys from back pressure. In the convalescence of the average case of laparotomy, the question of thirst sweating and vomiting create a drain on the body fluids but in the absence of infections this drain can be taken care of. Giving fluids by mouth may defeat the object for which they are given because of a stasis and distention that provokes the effort of vomiting thereby increasing the burden. While rectal infusions do not relieve thirst they add to the fluid reserves.

Whatever the true pathology of gastrointestinal atony may be we have to reckon with a serious possibility of danger in certain cases perhaps handicapped and our only escape is through an early recognition of this condition and it is wise to apply the treatment in doubtful cases.

In shock the phenomenon of dilatation of the peripheral capillaries through the sympathetic nervous system has its analogue through the same nerve supply in gastrointestinal atony.

Acute dilatation of the stomach is but one terminal phase of atony which should be recognized promptly by the application

of the stomach tube and fluids by rectum.

Since the experience of two fatal cases, which will be related, our alertness has seemed to avert dangers in similar subsequent cases. The treatment by gastric lavage is comparatively simple and should be applied in any case of epigastric tympany with burning eructations or vomiting. Immediately following a stomach douche, pituitrin should be given along with turpentine or salts—glycerine enemata and then morphine to promote rest and retention of rectal saline infusions. Palpation of the epigastrium is a routine that should be religiously applied as furnishing the first suspicion of trouble.

So the treatment of atony arising from disturbance of the sympathetic nervous system seems better applied by conspiring to force fluids into the system.

Case 3836—A short, stout woman, age 43, weighing 174, presumably a normal risk underwent a cholecystectomy without incident. Pains and occasional vomiting were persistent, unrelieved by enemata and morphine and on the third day stomach douche removed a quantity of intestinal fluids and gas and on 4th day fluids were given per rectum. Her condition becoming grave the abdomen was re-opened but nothing could be discerned but intestinal atony and after performing ileostomy through a Paul's tube atony seemed so complete as to fail to propel gases. The patient died on 5th day. Autopsy revealed no more than the above findings. The patient had evidently lapsed so far in toxemia that the treatment of atony was ineffective.

Case 3207—A short, obese woman, age 46, weighing 200 pounds was submitted to a cholecystectomy full of technical difficulties, having gall stones packed in a sacculated portion of the gall bladder behind the common duct. This case paralleled the one just mentioned and died on the 5th day.

These two cases suggest the menace of obesity as a surgical risk for the reason that such patients seem to suffer the dangers of dehydration more than others because the blood volume is out of proportion to the body weight. In other words the encum-

brance of excess of fatty tissues fails in an emergency to give up the water needed to combat a flood of toxemia.

The lessons learned in these cases have been applied in other cases towards combating gastro-intestinal atony by routine rectal infusions early applied. Experimental observations in cases of obesity have shown that "Artificial diuresis is induced only with the greatest difficulty" which would indicate that the water reserves that should be delivered to combat toxemia fail to be utilized and experiments also show that pituitrin conserves the circulating fluids for systemic needs. Toxins from infections tend to impair the output of certain internal secretions which would release water bound up in body tissues by disease attended by fever, oedema, etc., for the purpose of diluting and eliminating the toxic debris. A clinical evidence of this phenomenon may be found in the fact that diuresis is notable in the crisis of certain diseases such as pneumonia, typhoid fever, etc.

Dehydration has existed for sometime before certain terminal symptoms appear such as shrunkened features, dry tongue, glazed eyes, etc. In cases of jaundice of short duration forcing fluids for days, along with hot baths goes a long ways towards lessening the dangers after operation. In diabetes the alkaline reserve in the blood is so low that slighter degrees of dehydration precipitate the development of acidosis.

The following conclusions may be offered as suggestions for clinical applications:

1. In the presence of a normal fluid content dehydration may refer to a condition of need of a greater quantity of water to combat systemic infections and for this reason forcing liquids becomes rational.
2. Under normal conditions a ten per cent dehydration is serious and twenty per cent reduction would be fatal while a forty per cent reduction of the solid contents of the body would not be dangerous to life. In diseased conditions these disproportions would become exaggerated.

3. In the presence of fasting water given freely will prolong life 40 to 50 days.
4. Practically no water being absorbed in the stomach and little in the small intestines our main reliance depends on the colon.
5. The water content of the small intestines through osmosis may exceed for the time being the intake of fluids because of water evolved from certain metabolic processes.
6. Blood concentration with increased hemoglobin may result from extensive skin burns, shock, purgatives, chronic diarrhoea, etc.
7. In cases of acute hemorrhage, after the introduction of fluids the blood cells seem to increase with the total volume of blood.
8. In shock intravenous saline solutions go to the tissues without increasing the blood volume and as a result depletion persists. L/
9. In systemic infections the water needs are proportionately greater than in normal conditions.
10. Peritonitis brings about dangers not only from septicemia but from intestinal block from adhesions which in turn promotes the development and absorption intra-intestinal toxins along with excess of osmotic fluids resulting in dehydration of the tissues.
11. The time honored treatment so-called Murphy-Oschner-gastric lavage-Fowler bed technic should receive greater emphasis and should be resorted to in practically every laparotomy which has applied a drainage tube, because the degree of virulence of infection cannot be demonstrated at operation.
12. While the average laparotomy may not draw on the fluid reserves, laxatives are still necessary for comfort but purgation should be avoided and post operative discomforts may not be altogether attributed to dehydration.
13. The crying need in all cases of acute gastro-intestinal stasis is fluids as a vis-a-tergo, applied early and actively.
14. Clinical observation warrants the belief that the surgical hazards in cases of obesity are greatly one of dehydration.
15. Pituitrin is a valuable adjuvant in post-operative treatment of atony in that it also limits the degree of dehydration of the tissues by preventing loss of fluids through a reverse process of osmosis.
16. Forcing fluids is a valuable preoperative treatment in jaundice, prostatic obstruction and obesity and especially in diabetes where the alkaline reserve of the blood is low.

DISCUSSION OF SYMPOSIUM ON ABDOMINAL SURGERY

(Papers of Drs. C. W. Roberts, B. T. Wise, W. E. Person, C. D. Ward, George A. Traylor and R. M. Harbin)

DR. H. R. SLACK, LaGrange: Not being a surgeon, I was much interested in the title of Dr. Roberts' paper, "Preventive Abdominal Surgery." The Chinese have probably the oldest civilization in the world and their salutation is the best possible answer to this problem. We salute our friends with "How do you do?" The Frenchman says, "How do you carry yourself?"; the German, "Which way are you going?"; but the Chinaman says, "Have your bowels moved today?" That is the best salutation possible if you wish to have preventive abdominal surgery. The Chinese, too, pay their surgeons to keep them well instead of for operating upon them.

I have recently observed a case in which Dr. Roberts had prevented abdominal surgery. One of my friends had eaten some barbecued meat which had been saved too long and was seized with severe cramps. His brother-in-law, a surgeon, feared it was appendicitis. A consultant from Atlanta was called in and as the case was a rather obscure one did not know whether to operate or not. They sent for Dr. Roberts, who brought his conscience along and refused to operate. Within two hours the patient was relieved and was up and around in a few days. That is a good case of preventive abdominal surgery.

I recall another very interesting case which I observed a number of years ago. In 1895 or '96 I had the pleasure of taking a course under Dr. Osler at Johns Hopkins. Old Dr. Spalding was at that time one of the leading shoe merchants in Atlanta. He had moved from LaGrange to Atlanta and while there had a dysentery which could not be controlled. He had been a large man, weighing about 200 pounds, and lost over 50 pounds. He kept examining himself and finally found a lump in the abdomen and told his physician he thought he had a cancer of the bowel. He was referred by Dr. Elkin to Hopkins and Dr. Osler and I were asked to observe his case. Osler made a careful examination and said that in his opinion there was nothing in the abdomen.

He was so obsessed with the idea of Cancer that Dr. Osler advised an exploratory operation, which was performed by the prince of surgeons, Dr. Halsted. He found nothing but a lump of fat. He did not remove it; merely closed up the wound and the patient made a good recovery.

Another case of conservative abdominal surgery, but one requiring operation.

DR. W. F. WESTMORELAND, Atlanta: I wish to discuss the subject of dehydration and am glad that Dr. Harbin read a paper on it. I know of nothing that has been as much neglected as dehydration, not only in surgery and medicine but in common everyday life as well. When you cut down the water supply of the patient on a diet for acidity if you cut down the water you increase the acidity and some patients have a very severe acidosis. In all patients who come into my office I determine the condition of the blood. I think there is no subject in which I have been more fooled than in seeing rosy-cheeked patients who are very anemic. The plan we use with these patients is to start giving water two or three days before operation and we always reduce the acidity by some alkali. When these patients are operated upon they get two quarts of water with two teaspoonfuls of soda by proctoclysis and nothing by mouth at all. They get two quarts of water twice a day and this is kept up until they begin to drink plenty by mouth. If necessary, we give more. The reason I prevent water by mouth is because it produces nausea and vomiting. By this method we eliminate that much of the waste because these patients do not vomit and are not wasting their fluid in that way.

I do not know of anything that has added to the comfort of the patient as much as increasing the volume of water and seeing that they get it immediately after operation. These patients are very comfortable instead of being nauseated and miserable. If it is hard to move the bowels I always increase the volume of water.

I am sorry to say that there is another point that I have noticed and that is that nearly all women are small water drinkers. The majority of patients rarely touch water or fluid except that which is associated with the meal, and that is not sufficient. You can take many patients with vague discomfort and symptoms of neuralgia and by correcting the amount of water intake and curing the acidosis you can do away with this. It used to be very popular to use effervescent drinks after operation, but this increased the nausea. I can say now that not oftener than once in ten times do we have any nausea after operation. This treatment should be kept up for four or five days or longer after operation. The worst case of acidosis I have had came on when I suspended this treatment five days after operation and it took a week to cure it. I had the metabolic balance established and she had a pleasant uninterrupted time for five days and I told the nurse she could leave off the proctoclysis. The next day she was the sickest woman I ever saw. So in these cases you have to watch out and see that the dehydration is properly corrected after operation and when they begin to drink we must see to it that they have the proper kind of water. We drink any kind of water that is presented, but I know of nothing in which more care should be exercised than in the type of water that our patients drink.

DR. A. C. WADE, Augusta: I think Dr. Roberts' paper is very timely indeed. I can't recall when I have ever had the pleasure of listening to one of any more interest to the profession, and any more to the point. During the reading of this paper I was reminded of an address made before the Richmond County Medical Society, by that great old Patriot, Dr. Jacobi, who was a guest of our society. During the course of his address he made a plea for more conservative surgery of all kinds. In the course of his address, he said that on one occasion he was invited to visit a new hospital that was run and controlled by several young surgeons, and while going through the institution on a tour of inspection, that one of the young operators took him into the museum and very proudly picked up a large jar or receptacle filled with human ovaries and called the doctors attention to the same, and Dr. Jacobi replied "yes, that is all

very nice, but damn you ninety per cent of them could have remained where they belonged, and you would have had happy contented individuals instead of morbid creatures."

As one of the profession who has spent more than a quarter of a century in the active practice of medicine with special attention paid to the diseases of the female, I wish to say that I daily come in contact with females who have undergone unnecessary and uncalled for operations, which in most instances are done by eager, inexperienced occasional, young operators, who show lack of judgment, greed for money, and that desire for a record of operative work. Gentlemen, a woman's every thought, her every characteristic, her whole outward appearance, her entire being is controlled by, and depends upon her reproductive organs down to the very minutest detail, and the man who would be so guilty as to remove them without a just cause, and most especially the removal of the cervix of a woman under thirty-five years of age, unless that cervix is malignant, should be punished as a criminal.

Gentlemen, these patients become poor, nervous, morbid individuals. What use are they to themselves, or their family? I see this all the time, and I want to say that I have prevented more than one damage suit right here in Augusta. The surgeon rarely ever sees it, for as a rule they never go back to him, but instead curse him for all they are worth.

I believe that 80 per cent of all these operations can be prevented by proper treatment. If you gentlemen who operate do not care to take the time to treat them, send them to someone else and give them a chance. I have patients every day that tell me Dr. So and So said that I would have to be operated upon, that my ovaries would have to be removed, or that my cervix would have to be amputated. I see cases almost daily with diseased conditions of the cervix, such as erosions, and some of them almost precancerous that I treat and heal and send them away with a cervix as smooth as the palm of my hand.

I am not opposed to operative surgery when it is necessary and when it is properly done. I have had three major operations myself, but I think that the greatest curse of our profession is the eager, inexperienced operator with the lack of judgment. The female is the one that suffer most from their hands, and it is a pity to God that some of the men could undergo similar unnecessary operations, and then we would have less of it.

DR. CHARLES USHER, Savannah: Discussing Dr. Roberts' paper, I agree with what some one said a long time ago, that in these things one should not be too bold nor should he be too timid. I think we could well follow the advice of David Crockett, who said, "Be sure you are right and blaze away."

In the paper on the gall-bladder, I think most of the trouble comes from infection. The next thing is whether we are going to drain or remove. As the doctor said, we are going to remove in 90 per cent of the cases, but in some it is better to drain. In pancreatitis with obstruction of the common duct, in these cases, it is probably better to use novocain solution and drain under local anesthesia, especially in old age. In all cases of pregnancy I believe it is wise to drain. If it is the first attack, drain. If you are going to remove the gall-bladder in these acute cases it is a good plan to drain the common duct, for there we have most of our trouble for we have to have free bile drainage to the surface. One little point, as C. H. Mayo said, the glands of the foramin of Winslow are enlarged if the gall-bladder has had infection. There are three other things that might cause these glands to be enlarged, pathology in the stomach, in the duodenum or the pancreas. If those three are negative and these glands are enlarged it is wise to remove the gall-bladder.

There are some other points in the technic of the operation; for instance, an incision that I have used for the last eight years and can endorse. It is a Bevan incision except that you continue on down two inches to the right of the umbilicus and cut the peritoneum at about 45° transversely. Ordinarily, the peritoneum amounts to nothing and you can retract at one side or the other in the lower portion, but in the upper part it is more of a fascia and if you cut at 45° it is much easier to suture up. In some cases, particularly in a fat patient, if you make an incision in the median line and then make a Perthes' transverse incision I think it does less harm than if you pull and retract and get hemorrhage away down in the abdomen.

Another point: Some men put a clamp on the cystic duct on one side and another on the opposite side and cut between them. Then when you go to tie the proximal end of the cystic duct it is away down in the belly, and you pull the clamp off. I have seen some very severe hemorrhages occur in this way, and sometimes one pulls the clamp off and it is a man's sized job to pick the ends up again, I mean the cystic artery.

Another point, if you put a little piece of omentum down in the place where the gall-bladder came from it is of great assistance in healing, and it is better to have adhesions to omentum than to the stomach or duodenum. They nearly always occur.

Some parts of the body can do very well without drainage, but in the gall-bladder this is not true. Bile is thin and I think it is advisable always to put in a drain.

DR. GEORGE L. ECHOLS, Milledgeville: We can live without air about eight minutes, without fluids three to five days, and without food from thirty to sixty or more days.

It is very important to watch the fluid intake when treating certain types of mental diseases, and especially highly excited, stuporous, or delirious cases.

Three days ago I revelled on my reception ward an exhausted maniac—exhausted from the maniac excitement to some extent; however, I think a lack of fluids was to a great extent responsible for the exhaustion. As soon as fluids were started in this case a rapid physical gain was noticed.

DR. W. R. DANCY, Savannah: I wish to discuss the paper by Dr. Traylor on "Cancer of the Small Intestine." Nothing can be said to add to Dr. Traylor's paper insofar as diagnosis and treatment are concerned, but I wish to call attention to one or two points, chiefly in duodenal cancer. Cancer of the duodenum practically never occurs above the ampulla. Ulcer of the duodenum practically always occurs within two centimeters of the pylorus, which is always above the ampulla. Therefore, ulcer of the duodenum does not predispose to cancer. In the duodenum there are two chief sites of cancer, the principal one being in the lower section just where the vessels cross the duodenum. The other is at the circular ampulla. A cancer in this region is very interesting because of this particular feature: It requires a growth only about the size of a cherry to completely block the ampulla, dam back the bile, produce increasing jaundice, dam back the secretion of the pancreas and cause degeneration of the pancreatic tissue, prevent elimination from the liver and produce an increasingly toxic condition in the intestinal tract because of the destitution of these organs. Those cases last only about six months. The other forms of malignancy throughout the gastrointestinal tract are usually annular lesions or are connected with the gall-bladder.

Discussing the paper of Dr. B. T. Wise, the Doctor did not mention the use of acroflavin and mercurochrome in infection of the gall-bladder although he covered the subject otherwise very well. A case came under my observation some months ago which re-

sembled malarial fever but which was diagnosed as gall-bladder infection. Examination at operation showed the streptococcus to be the causative agent. Drainage was introduced and the patient improved slightly for a long time, but then became worse. Another operation was performed and drainage was continued, without benefit. We used acroflavin, also without any benefit, and then we used mercurochrome without any benefit. The case resulted fatally. The conclusion is that in streptococcus infection, particularly of the gall-bladder, acroflavin and mercurochrome given intravenously are of no particular benefit.

DR. J. L. CAMPBELL, Atlanta: Dr. Harbin's paper is very timely but I can only say a few words with reference to the subject. So many of our patients die from lack of water that this particular feature of post-operative treatment should be carefully watched. I wish I had a longer time to discuss this than is allowed for the whole symposium for I heartily endorse his views.

In regard to Dr. Person's paper, I could also spend much time with the rare condition he reports. I happen to be familiar with the case for I watched it through the entire stay in the hospital and know that the doctor has been amply rewarded for his time and attention.

In discussing Dr. C. W. Roberts' paper, I want to say that I hope he did not intend to convey the impression which some of his remarks seem to have made on the mind of myself and others; that is, that the instructions given students by specialist in our colleges lead them to operate in many instances unnecessarily. I feel sure that he does not intend to convey that idea because he teaches surgery in the same college with which I am connected and I know that he does not wish to condemn himself.

Nothing is further from our minds, for we strive to impress every student with the importance of making a diagnosis first and then applying the most conservative treatment possible under the circumstances.

With our present facilities, we cannot make specialist, we can only hope to prepare the men for general work which will enable them to serve the communities in which they may locate to the best advantage. A medical college cannot be responsible for the conduct of its students and I will agree with Dr. Roberts that a great deal of unnecessary surgery is done but I do not believe it is the fault of the teaching.

DR. CHARLES H. RICHARDSON, Jr., Macon: I think the paper of Dr. Roberts should be read by every surgeon, but there is not time to discuss it in the way that it deserves.

In the gall-bladder cases, unfortunately the eating habits of these individuals are beyond our control and lead to obstruction. I do not agree with Dr. Wise as to the constipation. An infected gall-bladder cannot be cured by medical means and should be removed in toto.

In discussing the papers dealing with tuberculosis and cancer, they bring out first that tuberculosis tends to develop in an alkaline medium. The very fact that the Doctor had a case of tuberculosis of the stomach shows the great rarity with which it develops in an acid medium. The fact that Dr. Traylor had a case of carcinoma of the small intestine is evidence of the rarity with which carcinoma develops in an alkaline medium. We know it develops much more frequently in the acid than in the alkaline medium. We also know that carcinoma tends to develop at the site of irritation. That was well brought out in the case of carcinoma of the pancreas. It is very rare without preliminary irritation from the gall-bladder. We all know that the body in health tends to maintain a water balance, and that in disease this is frequently upset. Dehydration is the result and the remedy, of course, is to supply and make up that water balance by furnishing

fluids, particularly water, in any way by which it can be introduced. The type of fluid used is of importance because where the kidneys are damaged a normal saline solution is somewhat impracticable as it is impermeable to the kidney and creates a condition of retention of chlorids, and is not as good as plain water. We can add to water two substances, an alkali and a carbohydrate, and increase the value a great deal. The alkali tends to increase the output, and we can make up the glucose deficiency by supplying this in water.

A word about the method by which this fluid media is given. Probably the most common way in the ordinary hospital is by the rectal drip, or proctocolysis. In private practice it is difficult to get this working all the time, but by dividing thirty-two ounces of water into four parts and giving an eight ounce instillation every four hours it will serve almost as efficiently as the proctocolysis.

DR. W. A. SELMAN, Atlanta: In referring to Dr. Wise's paper, he said that if we knew when the infection was at its height, we would possibly know what to do. The great trouble is that we do not know this, but we must do something for these acute conditions. My experience is that when an acute gall-bladder case is brought in we do not know what diet the patient has had. People, as a rule, have an aversion to consulting surgeons and we do not know whether there is some focal infection, some blood-borne infection, whether there is pronounced constipation, or what the difficulty is. We have to do something, and if we decide that operation is advisable, then the great question comes—what to do? I have no less faith in the reconstructive principle of the gall-bladder than I have. In the reconstructive conditions of the body elsewhere. An acute urinary bladder gets well and functions later and why should not an acute gall-bladder? I think history has shown that it does. Many gall-bladders were drained years before they were taken out, and if the products of acute infection are drained away it temporizes. At any rate, it gives the patient time to acquire an immunity against that special organism, it allows the acute congestion of the ducts to subside, and drainage to be established. Then the reparative process of nature in the gall-bladder, as elsewhere, begins to gradually overcome the infection and it returns to normal function.

In regard to Dr. Person's paper, it is interesting. I believe that more infections of the peritoneum are discovered as we make pathologic examinations. I think we have depended too much upon the gross appearance of tissue as to the cause of inflammation and I believe tubercle bacilli will be found more and more as pathologic routine examinations are made following removal of tissue.

Regarding Dr. Traylor's paper, one thing I do not recall his bringing out is the value of the blood count in the differential diagnosis between malignant tumors and infection of the gastro-intestinal tract. If a fixed mass can be felt we are often at a loss to know whether it is an acute abscess or a malignancy, and the blood count will be of great value in these cases.

Referring to Dr. Harbin's paper, I do not recall mention of hypodermoclysis as a method in which to give the water. If patients are nauseated, or the rectum is irritated and they do not retain the proctocolysis well, remember that you can put the water in the subcutaneous space and in that way give them a sufficient amount of fluid.

DR. H. H. MCGEE, Savannah: There is entirely too much in this Symposium to be discussed adequately. I wish to say that Dr. Roberts has spoken of a condition which we all recognize as existing in every community where there is a hospital. In his closing remarks I wish he would suggest a remedy. The chances are very material that our remarks are cast on the desert air, and our pearls before swine, for the chances are that the men who do that kind of surgery are

not here. They are staying at home and getting the work while we are away. I conceive of no remedy that will be effectual until hospitals require certain preoperative diagnoses to be written, and until we do not allow a man to operate in our hospitals unless he makes a preoperative diagnosis in elective cases. Then we should have him make a postoperative diagnosis and have them checked up by some individual in authority. Without much thought on the subject that is the only thing I can think of that would help to overcome the evil.

In reference to Dr. Wise's paper, I believe he is correct in saying that at least 90 per cent of the gall-bladders that are diseased should come out. I can conceive of very few instances in which if they are diseased they should not come out, except in those suggested by Dr. Usher—the pancreatic disease, the obstructed common duct, or in the case of old people in which one would have to use local anesthesia. I see no reason why a diseased gall-bladder should be left in any more than a diseased appendix should be drained and left in. That is just common sense. I have operated on a few cases that have been drained previously and have never seen such a gall-bladder that was not in bad condition. After an ordinary rubber drainage tube is stuck in a gall-bladder, sewed in and left there until the suture is absorbed, it produces a condition that to me does not appear to be very conducive to reparation. As to which gall-bladder shall be left and which shall be removed, it takes a smart man, smarter than I, to determine this. If after a careful examination the clinical symptoms point to the gall-bladder more than to any other organ and you deem it necessary to remove it for the health of the patient, then it appears to me the gall-bladder should be removed and not drained.

As to the drainage of the stumps of the gall-bladder I guess that will be discussed from now until the end of time. When I remove a gall-bladder between clamps I cauterize the stump the same as I do my appendix and cut my sutures and drop it back. If I am sure that I have not got an infected wound, I sew it and I have yet to regret this procedure. I do not say that I do not drain at all, but I do that in empyema of the gall-bladder—in cases in which I have pus.

DR. L. W. GROVE, Atlanta: On account of being limited to time, I only wish to discuss Dr. Wise's paper. I think that in the management of gall-bladder infections, each case should be a law unto itself. It appears that we have had too much dogmatism in the management of gall-bladder infections. Sometime last fall I sent out a questionnaire to thirty or more of our leading southern clinics and we were very much impressed, at the tendency to fads, in the management of these cases, as expressed by a large number of surgeons. This brings to mind a remark by Dr. Evert Graham: "The future gall-bladder surgery lies not in any stereotyped operation, but in a more thorough knowledge of the underlying pathology found, and suitably dealing with it."

With reference to the modes of infections it seems that we are warranted in thinking that we get infections of the gall-bladder by one or four routes; first, and probably one of the least consequence is by continuity through the hepatic ducts. I can not agree with Dr. Wise in giving this mode of infection first place. As was shown by the late Sir Osler, it is only rarely that an infection occurs through the ducts; second, hematogenous as so well shown by Roshnear and Mann; third, and probably the most common, the hepatolymphatic route, the gall-bladder being secondarily infected from the liver; fourth, the theory of Adami, who thought that the phagocytes of the blood might wander through the blood vessel wall, ingest the bacteria and finding their way back into the blood

stream later deposit the infection in the liver or gall-bladder wall.

The work of Graham has recently been substantiated by Gordon Haid of New York, who has successfully shown that in a large per cent of all chronic abdominal conditions, there is found an associated hepatitis.

DR. H. G. CARTER, Atlanta: Boyle, in 1810, was the first to call our attention to, and emphasize the frequency of tuberculous lesions of the intestinal tract. Arloing believes that the infection is transmitted by way of the blood current, and has produced gastric and duodenal ulcers of the tuberculous type by injecting tubercle bacilli into the blood current in animal experimentation. This theory is further supported by the fact that ulcers of the duodenum are most frequently found in the acute disseminated type of tuberculosis, rather than in the chronic form, in which the disease is localized. In the early stages of tuberculosis there is an excess of hydrochloric acid, whereas, when fever develops the hydrochloric acid diminishes. Nothnagle, with Antipyrin has reduced the temperature and noted an improvement in the gastric secretion. Hydrochloric acid impairs the activity of tubercle bacilli in the stomach, but those surviving pass out of the stomach into an alkaline medium which acts as a favorable culture media for their growth. Reed claims that ulcers of the intestinal tract will rarely be found where hydrochloric acid is normal in amount, and that they are always secondary to, or associated with, tuberculosis elsewhere. Gastric analysis in tuberculous ulcers of the intestinal tract is identical with that of carcinoma of the Pylorus. There is a decrease or entire absence of free and combined hydrochloric acid. The Oppler-Boas bacilli may be present. One may find a tumor beneath the right costal margin, and if Peritonitis is present tenderness and muscle rigidity will be present. The Koch tuberculin test is very important in making a diagnosis. Tuberculous ulcers may be single or multiple; from pin-head in size to a silver dollar; irregular in outline and they invariably occur along the transverse axis of the gut, commonly known as the girdle ulcer. Healing is usually very slow, but when it does occur, a stenosis usually results. All tuberculous patients should be regarded as sub-standard surgical risks. Their resistance is low and complications are more liable. Drainage is to be condemned in these cases, because of the tendency to mixed infection and persistent sinuses. The prognosis depends more upon the extent of the tuberculous lesions elsewhere in the body, than upon those of the intestinal tract.

DR. C. W. ROBERTS, Atlanta (closing): When I decided to write a paper concerning problems of such delicate slant I anticipated the discussion that might arise both favorable and otherwise. Notwithstanding, I think you will agree that their solution is vital to the future growth of the surgical art and essential to the maintenance of its unquestioned position in the minds of all discriminating physicians.

Dr. McGee raised the point that the paper probably was intended or better suited to those physicians not usually in attendance on this annual assembly. I do not agree with that sentiment. The question is comparable to that frequently referred to by Dr. Ashby Jones who once occupied with distinction, a pulpit in this city and who frequently makes this statement in his sermons, "Beloved, I am preaching to my own heart." As I prepared this paper and while reading it, I was directing its admonitions of my own heart and hoped that its sentiments might find sympathetic response in the minds of the rank and file of our profession. The largest question I have had to deal with has been the problem of the patient, who having accepted the ordeal of surgery, was found on examination not to need operation, or to fall in the borderline group. I believe there are men in this room who face the same problem, and I hope this paper will com-

mend itself to them—to those who are setting standards and establishing precedents amongst us. The paper is for family consumption. Violations by those who absent themselves from our meetings are less pernicious than those committed under the cloak of organized medical thought.

With respect to Dr. Campbell's remarks, I wish to say that this paper, presented in an abridged form, justified his criticism of its unqualified statements and may have been misleading. If I could have finished in the allotted time I think the fault would have been removed. The concluding section constitutes the soft pedal. I will say, however, that having had the opportunity of working under and by the side of such worthy surgeons as Dr. Campbell and his associates in the Department of Surgery, Emory University, I have been constrained to emulate their example.

I did not wish to single out my own City as the source of the pernicious habit of unbridled operating. I do not retract the inference however, that Atlanta, in common with other communities in the South has been guilty. There have been ulterior motives, lacking the just approval of our profession, active in swaying judgment in favor of surgery when other forms of therapy should have been elected.

Happily, the pendulum is swinging back to rational surgery and he who would operate, with the approval of his fellows, must give tenable grounds for "The faith that is in him."

ESSENTIALS IN THE MANAGEMENT OF DIABETES*

W. E. McCurry, M. D.

Hartwell, Ga.

Diabetes has been defined as "a deficiency of the internal secretion of the pancreas." It is probably the best definition. It covers our knowledge of the subject which is indefinite with a concise statement which is equally indefinite. Deficiency is a broad enough word to cover any hypofunction or dysfunction. Internal secretion means little more than the symbol "x". True, we have learned a little of what we believe to be the effects of the internal secretions, and work with them with more or less accuracy; but "what" and "why" and "when" and "where" we do not know. As to the pancreas, the only precise word in the definition, all observers are agreed that it is the principal organ involved in diabetes, though it is by no means sure that it, alone, is concerned in glycogen metabolism.

Let it be understood at the outset that the essayist makes no claim to originality in the matter here presented; but attempts only to offer the conclusions reached by him after an opportunity during the past

*Read before the Eighth District Medical Society, Washington, Ga., Aug. 13, 1924.

winter to study the disease in personal association with such men as Petty, Meeker, F. M. Allen, Shelly, Sailer, Jonas, and others. The method to be described is essentially that in use by Petty at the Roxboro Memorial Hospital, with some modifications derived chiefly from personal contact with other workers in metabolism.

A number of variable factors enter into the management of a given case, the principal of which are the proteins, fats, and carbohydrates in the diet, and the dosage, if any is required, of insulin. The larger the number of variables entering into any mathematical problem, the more complicated is that problem. It is the wiser plan to eliminate in the beginning as many of these unknown quantities as possible. All observers are agreed that the end to be aimed at in the treatment of the disease is to get the patient on a diet sufficient to maintain his health and strength under the ordinary conditions of life with as little insulin as possible. Any method of management, then, by which the proper amount and proportions of food can be determined at the outset, will eliminate all variables except the dosage of insulin. This will at once convert the problem from a complicated one with four variables to a perfectly simple one; the only unknown factor left being the dose of insulin required.

In determining such a diet there are a few fundamental requirements that must be met:

1. The patient's health and strength must be maintained.

2. He must be able to attend to the ordinary duties of life including a reasonable amount of exercise.

3. He must be kept slightly undernourished, yet have a sufficient bulk of food to keep him comfortable.

4. The diet must have a ketogenic-antiketogenic ratio that will prevent the development of acidosis; and

5. The urine must be kept sugar free at all times and the blood sugar at or near normal.

The ranks of the diabetics are recruited from the obese. The diabetic patient may

be emaciated; but it is only when his metabolism has broken down. Before the days of insulin, F. M. Allen definitely established the fact that diabetic patients do better when kept undernourished. A wide experience with insulin has not changed his views, though it has obviated the necessity of the extremes of starvation which he formerly practiced. Joslin, Woodyatt, Petty, and practically all other workers in metabolism are in accord with him. Insurance statistics have shown that the best risks are in those ranging from the ideal weight of the Life Extension Institute to a few pounds below. If the average healthy individual lives longer if his weight is kept low, it is surely necessary for the diabetic to put as small a load on his defective metabolism as is consistent with comfortable existence. An adequate diet for one about 10 pounds below the actuaries' ideal weight—a few pounds less for those of lighter frame, a few pounds more for those of heavier—fully meets the requirements of the average case. An allowance of 30 calories per kilogram (2.2 pounds) of this weight is sufficient for the ordinary activities of the adult; 40 to 45 calories, for active growing child. The total calories required is the product of the weight in kilos by the number of calories allowed per kilo.

Having determined the total caloric requirement it is necessary, in laying out a plan of diet, first to provide for the maintenance of nitrogenous equilibrium. Crittenden found the average consumption of proteins in the United States to be 118 grams and believed half this amount enough. Joslin believes two-thirds of a gram per kilo a safe minimum, though not sufficient to provide for growth and such extraordinary requirements as illness and heavy muscular work. A safe and widely used allowance, and one that simplifies the calculation, is one calorie per kilo of ideal weight. This is deducted from the total calories and the remainder divided between fats and carbohydrates in the proportion of one gram of carbohydrate to three grams of fat. A diet so arranged will have a ketogenic-an-

tiketogenic ratio of about 1.6 and on it acidosis will not develop.

To illustrate, let us take a man 5 feet 8 inches high, weighing 160 pounds. From the tables of the Life Extension Institute we find his ideal weight to be 152 pounds. The tables of standard weight published by the leading life insurance companies vary but slightly from those of the Life Extension Institute and are accurate enough for practical purposes. Deducting 10 pounds we have for our patient a basic weight of 142 pounds; which divided by 2.2, the number of pounds in a kilogram, gives us 64.5 plus, say for practical purposes 65 kilos. Assuming him to lead an ordinary life we allow him 30 calories per kilo.

$$65 \times 30 = 1950 \text{ calories}$$

Allowing him 1 gm. of protein per kilo, he gets 65 gms. of protein. There being 4 calories in each gram of protein, we deduct

$$65 \times 4 = 260 \text{ calories}$$

$$1950 - 260 = 1690$$

the number of calories remaining, to be divided 1 gm. carbohydrate to 3 gms. fat.

$$1 \text{ gm. carbohydrate equals } 4 \text{ calories}$$

$$3 \text{ gm. fat equals } 27 \text{ calories}$$

$$4 + 27 = 31$$

Of the 1690 calories $4/31$ will be carbohydrate and $27/31$ will be fat. These calories must be reduced to grams so that

$$1690 \times 4/31 \div 4 = 54.5 \text{ plus or } 55 \text{ gms. carbohydrate;}$$

$$1690 \times 27/31 \div 9 = 163.5 \text{ plus or in round numbers } 165 \text{ gms. fat.}$$

This gives us a formula of P 65—F 165—C 55.

To simplify, we allow 65 gms. protein, divide the remaining 1690 calories by 31 which gives the carbohydrate in grams, and multiply this by three for the fat.

$$65 \text{ gms. protein equals } 260 \text{ calories}$$

$$1950 - 260 = 1690$$

$$1690 \div 31 = 55 \text{ gms. carbohydrate}$$

$$55 \times 3 = 165 \text{ gms. fat.}$$

If this plan of constructing a diet is followed there will be no reason to bother about the ketogenic-antiketogenic ratio, because the proportion of total glucose to fatty acids will be as 1 to 1.6 which is well within the limits of safety, and the patient will not

develop acidosis while following it. If this diet, however, is departed from, or if, for other reason, it is desired to compute the ratio, it is only necessary to remember that 42 per cent of proteins and 90 per cent of fats go to form fatty acids; and that 58 per cent of the protein, 10 per cent of the fats, and all the carbohydrates are capable of conversion into glucose. For example, using the diet as determined above:

	Total Glucose	Fatty Acids
$65 \times .58$ equals	37.7	
$165 \times .10$ equals	16.5	
55×1.00 equals	55.	
	109.2	
$65 \times .42$ equals		27.3
$165 \times .90$ equals		148.5
		175.8

$175.8 \text{ fatty acids} \div 109.2 \text{ total glucose} = 1.6$ plus, the ketogenic-antiketogenic ratio.

A patient coming for treatment is put upon a suitable maintenance diet, so determined, in the beginning. He is kept on this without other treatment if there are no complications while a complete survey is being made of his condition; this survey to include a thorough physical examination; the routine blood examination consisting of haemoglobin determination, red and white cell and differential counts, examination for parasites and Wassermann; daily study of the urine for specific gravity, albumen, sugar, and diacetic acid; quantitative determinations of the amounts of sugar, urea nitrogen, uric acid, creatinin, chlorides, and plasma carbon dioxide in the fasting blood; and any further investigations suggested by the findings in the particular case. This will usually require two to four days, by which time the sugar in blood and urine will have reached a constant level for the diet. If, by the end of this period, the urine is sugar free and the blood sugar at or near normal limits, he is allowed to continue the diet with daily quantitative estimations of the blood and urine sugar; if, however, the urine still contains sugar, or if the blood sugar remains high, say above 140 milli-

grams per 100 mils of blood, the administration of insulin is instituted. He receives 5, 10, or more units before each meal, the initial dose depending upon the estimate of his ability to metabolize his carbohydrates. Quantitative determinations of the sugar in blood and urine are continued daily; now in the evening because the blood sugar is lowest then. In three or four days a dosage of insulin is determined upon which the urine will remain sugar free and the blood sugar within normal limits. During this period the patient is educated in counting his food values, making quantitative determinations of his urinary sugar, and in the symptoms and treatment of hypoglycaemia.

All this sounds like a formidable task, and it is laborious outside of a well appointed hospital; but no one is justified in undertaking the management of a case of diabetes with no other facilities than a prescription pad, a hypodermic syringe, and a bottle of Fehling's solution. The disease is one in which the treatment is by the yard stick and the scales—almost purely mathematical; but mathematics so simple that a child in grammar school may master it. I have seen it done. Little clinical acumen is required, save perhaps in the management of the complications; and these are not frequent except in the untreated or badly treated cases.

Having determined the exact condition of the patient's metabolism and his needs as to diet and insulin, and having taught him these few simple requisites, he is provided with scales weighing in grams, a diet card, a 10 mil pipette graduated in tenths, a test tube, beaker or teacup, a bottle of Benedict's reagent, and a hypodermic syringe if he is to have insulin and instructed to report once a month for blood and urine check and upon the first appearance of sugar in the urine or any unusual symptoms. In a well appointed hospital with a trained dietician this stage should be reached in ten days; it should take but little longer outside.

The less irksome the treatment the more likely is the patient to follow it faithfully.

At best it requires a readjustment of his life; and the effort should be, as far as possible, to adjust the treatment to his ordinary manner of life rather than to adjust his life to the treatment. He should be subjected to as few restrictions, inconveniences, discomforts, and annoyances as is consistent with the proper management of his case. His likes and dislikes should have due consideration in the selection of his diet, and, if he requires insulin, he should have as few doses daily as will keep his urine sugar free and his blood sugar within normal limits. If his insulin requirement is less than 30 units it will usually be possible to accomplish this with one dose daily before breakfast when the blood sugar is highest.

The plan outlined involves quite a bit of laboratory work, the greater part of it, however, routine investigation necessary in a proper survey of a patient ill with any disease. Unfortunately for us in the Eighth District there are few hospitals and none I know of equipped for all of the work suggested. All of them I think can do blood sugars. Quantitative determinations of blood and urinary sugar and tests for diacetic acid in the urine are fundamental requirements and no case is properly treated unless these tests are frequently made. Every physician who essays to treat the disease should be able to make the necessary examinations of the urine and to teach his patient to make quantitative or at least qualitative estimation of urinary sugar. There are few places so isolated that a blood specimen cannot be transmitted to a laboratory within two hours; and if the blood is kept on ice or in an iced vacuum bottle the amount of glycolysis within two or three hours is negligible. A simple method of handling the blood is as follows:

Prepare a non-clotting tube by evaporating over a flame 1 or 2 mils of a 0.1 per cent solution of sodium oxalate in a test tube, the tube being inclined and rolled about so that its whole inner surface is coated with the precipitated salt; allow 5 or 10 mils of blood to flow from the vein through a needle into the tube, stopper, place on ice or in a

cold vacuum bottle and send to laboratory immediately. If the examination must be delayed longer than two hours, 1 drop of a 40 per cent solution of formaldehyde will preserve the specimen. Satisfactory determinations of glucose have been made 3 or 4 days after withdrawal, but blood thus treated is not satisfactory for other blood chemistry particularly urea. With Benedict's picric-pierate method it is claimed that blood will keep indefinitely but the specimen must be examined by the Benedict method.

There is ground for the belief that, if a patient is put upon a satisfactory regimen before the hydraemic degeneration of the beta-cells in the Islands of Langerhans has progressed to destruction, the rest afforded the overworked cells will result in their partial or complete restoration to normal. It is therefore of vital importance that the disease be recognized at the earliest possible moment. This will not be done until the urine of every patient presenting himself, no matter for what condition, is examined for sugar; and this regardless of the specific gravity, for there is no greater fallacy than the widespread belief that diabetic urine must have a high specific gravity.

The time at our disposal and the purpose of this paper do not permit consideration of the complications of the disease. The more the problem of diet is simplified, the fewer complications there will be to handle; and the simpler the management, the more readily is it adaptable to the particular complication encountered.

Summary

The aims of the paper are: To emphasize the value of undernutrition; to present a simple method of determining a satisfactory maintenance diet; to point out the difficulties and futility of juggling food values; to insist that a sufficient amount of laboratory work be done to ascertain the status of the glycogen metabolism, and to urge the vital importance of the discovery of the disease in a stage while there is the possibility of cure by the routine examination of the urine of every patient studied.

INTRAVENOUS THERAPY IN INFECTIONS*

William H. Myers, M. D.
Savannah, Ga.

The method of intravenous medication dates from 1656, when Sir Christopher Wren, who was professor of astronomy in Oxford University, used it in experimenting on animals. No doubt his experiments were based upon facts obtained through the discovery of the circulation of the blood by Harvey in 1628. In 1657 the first time that a medical agent was introduced in the blood stream of man, was by a Doctor Hale, of Boston, who had the temerity to inject castor oil into his own vein, but fortunately did not die until he described his rare experience.

The introduction of therapeutic agents into the vein attracted much attention in 1910, when Erlich presented arsphenamine to the profession. Since that time rapid progress has been made until at the present time there are 140 therapeutic agents, which may be administered to man by this route.

Hugh H. Young, in *Urology*, 1924, in discussing urinary antiseptics, predicts early and general use of the intravenous method of treating local and general infections. Hill and Colston, in *John Hopkins' Bulletin*, November, 1923, in reporting upon the intravenous use of mercurochrome, state that the bacteriostatic action of the blood against the colon bacillus, is greatly increased and remains so from fifteen to forty-five minutes afterwards, a period of one-half hour after administration, but after that period, bacteriostasis rapidly disappears. Young and Hill, in the *Journal of the A. M. A.*, March 1st, 1924, corroborate these findings. These authors report marvelous results in the use of mercurochrome and gentian violet, in the treatment of septicemia and local infections.

Summarizing their results they state that: "The results were almost miraculous, two patients being verily snatched from the jaws of death. In another case, an ascending retroperitoneal infection, the disappearance

*Read before the First District Medical Society, Savannah, Ga., July 15-16, 1924.

of the inflammatory mass was just as startling. In two more cases of pyonephritis, the patients' lives were undoubtedly saved, and in two cases, pronounced *B. coli* urinary infections of the kidney and bladder, disappeared almost immediately after a single injection of mercurochrome.

"These cases are sufficiently varied to show a wide field of usefulness for mercurochrome-220 soluble as an intravenous germicide, but just what the limitations of its use may be will have to be determined by a much more extensive series of trials. In most of the cases, the organism has been one of the colon group, but one of those reported here was a staphylococcus septicemia with extensive infectious processes in the chest, back and arm. Other cases, in which the drug was administered by others, and of which we have not complete notes, show that mercurochrome may be efficacious in streptococcus septicemias as well as in those due to the staphylococcus and colon bacillus. February 18, 1924, since first presenting these cases in October, 1923, several septicemias have been treated, two *S. hemolyticus* and two *S. viridans*, without success. On the other hand, three cases of staphylococcus septicemia have been cured by gentian violet injections (reports from Dr. George Heuer, Cincinnati; Dr. F. M. Hanes, Winston-Salem, N. C., and Dr. John T. Geraghty). Dr. E. B. Piper, Philadelphia, writes that he has cured three staphylococcus and several streptococcus septicemias with mercurochrome.

"In one case, a child, a dose of 8 mg. per kilogram of body weight was used once, and in one adult we injected 6.8 mg. per kilogram; but the patient had very severe nausea, vomiting and diarrhea, with a transitory albuminuria. Other patients who received 5 mg. per kilogram had pronounced gastro-intestinal symptoms, but all were transitory and after a few days the patients were normal. In urinary infections, the smaller dose may be justified and perhaps just as efficacious; but the desperate nature of septicemia demands drastic treatment, and 5 mg. per kilogram should be employed. That

the drug is not always successful in sterilizing the urine has been pointed out.

"The five cases treated by gentian violet comprise just as desperate cases as some of those treated by mercurochrome, and gave just as brilliant results. In all of these cases the infecting agent was a staphylococcus, and in our experience gentian violet has had an apparently selective action against Gram-positive staphylococci. Cases in which it did not affect the streptococcus or the colon bacillus are cited, but our series of cases is still much too small to lay down positive dicta as to the selective action of those drugs for the various pathogenic bacteria of local and general infections. In the case of gentian violet, the intravenous injection of 5 mg. per kilogram is immediately followed by a most alarming cyanosis, which is simply due to the dye in the blood, which causes no harm and passes off in a few hours. Otherwise, practically no reaction results, and we have administered 8 mg. per kilogram of body weight in 0.5 per cent solution without harm. The pulse may get quite slow (60) and the blood pressure drops. In very feeble patients, cardiac stimulants should be administered. In very weak patients, the injection may best be given in two or three treatments (intravenous) one hour apart, in order to give large doses.

"In these cases we have the first demonstration that gentian violet may be used intravenously to combat general septicemia or local infections, and with remarkable success in the case of Gram-positive staphylococci. Coupled with the equally amazing results obtained by mercurochrome, these cases represent a splendid therapeutic achievement, and one is tempted to soar into realms of fancy and see a great variety of infectious processes treated and cured intravenously; but one must be restrained and cautious. Only by most careful study and painstaking selection and management of the cases can serious blunders be avoided, and it would not be safe as yet to risk not operating on certain fulminating infections that can now be cured by prompt surgery. That certain lo-

calized infections may now be safely subjected to the experimental use of intravenous therapy is shown by some of these cases, and there can be no doubt that when blood cultures show a generalized septicemia, mercurochrome and gentian violet can now be offered with the hope of preventing an otherwise surely fatal ending."

I have always been impressed with the value of administering drugs into the vein, and it was with much interest that Young and Hill's article of last March was read. At about the same time the manufacturers of acriflavine developed a neutral preparation which is suitable for intravenous use. But few references have been made to its use, in literature. Jacob and Verasingam, in Calcutta, used it with very satisfactory results in acute gonorrhoea, and others have used it in a limited number of cases, but I can find no detailed report of its use in any considerable number of cases. Since mercurochrome has the disadvantage of salivating susceptible persons, and gentian violet seems especially applicable in infections produced by Gram-positive organisms, I decided to use neutral acriflavine. Therefore in April, I had a colored woman, age 45, suffering from a severe attack of arthritis of both knees. The joints were much enlarged. She was running high temperature, and suffering much pain. The initial dose was 50 cc of .45 per cent solution of acriflavine, giving one dose the first day, two doses the second, and two doses the third day, and one dose the fourth day. The immediate effect was to produce an uncomfortable sensation in the head and especially in the abdomen. This sensation passed off in a few minutes, and aside from the slight looseness of the bowels no organ was perceptibly affected. Since acriflavine is excreted almost exclusively by the kidneys, for several hours after administration, the urine presented a golden yellow appearance. The patient rapidly improved, and was well in one week from the time I first saw her.

The second case treated was a case of epididymitis in a white man, age 28. It was presumably gonorrhoeal, however, I

was unable to obtain any smear. An interesting point in this man's history was that he had syphilis several years ago, for which I treated him until repeated blood tests showed negative results. But about one and a half years ago, I delivered his wife of a premature dead fetus, and found she had syphilis. I took his blood and found that he had four plus Wasserman, and a secondary eruption on his body. He was given treatment for a while, but refused to take adequate treatment. When seen with epididymitis, June 2, 1924, his temperature was 104, and the testicle about half as large as a man's fist. 50 cc of a 1/2 per cent solution of acriflavine were prepared for administration. When he had received 40 cc, the patient complained so bitterly of an uncomfortable sensation in his head and stomach, that the other 10 cc were not administered. On the following day two doses of 50 cc were administered. On the third day another dose of 50 cc was given. The improvement was very rapid, and on the second day the pain was all gone and swelling greatly diminished. On the third day the patient felt better and wanted to go to work. I instructed him to keep quiet and I would call on the fifth day. When I called on the appointed day, the patient had gone to work, as flagman on a railroad. I am informed that he is well.

The third case treated was a case of furunculosis in a white child of eight years of age. He gave the history of having had, the previous summer, a great number of boils. Vaccine and medicine were administered without apparent result. When seen by me, June 5th, 1924, he had forty or fifty boils on his body. He was given 5 cc of .5 per cent solution. The second day he was given two doses of the same size. And the fifth day he was given one dose. Twelve hours after the first dose, there was a marked diminution in the redness and inflammatory process around each boil, and on the third day the boils had already dried up, and those which had had pus in them could be felt as a collection of fluid beneath the skin. The patient was instructed to return for further observation, which he failed to

do. In about two weeks the mother called up to state that the child was entirely well, and had no boils, but I have not seen him. This treatment was given in my office, and no adult accompanied the patient. He complained of an uncomfortable sensation in his stomach but he did not vomit. He walked home, a distance of about one-third of a mile.

The fourth case was of a colored girl, 22 years old, who gave a history of having her tubes removed two years ago, probably gonorrhoeal. She developed a typical case of arthritis in her right shoulder joint. 20 cc of .25 per cent acriflavine solution were injected. The inflammation left the shoulder and went into the knees. On the second day two doses of acriflavine were given. The pain and swelling in the knees rapidly

subsided. The ankles became swollen. Eight injections were given, and while the pain and soreness would subside temporarily, the treatment was not satisfactory, somewhat due, perhaps, to the fact that the patient was complaining and objecting to the treatment and a sufficiently large dose was not administered to control the disease. The treatment in this case was a failure. It was probably not due to gonorrhoeal infection.

My experience along this line, is limited as you see, but we feel that local applications, vaccines, and the other recognized methods of coping with bloodstream infections, have all fallen far short of what we desire. It is confidently hoped that we are on the eve of seeing an advance made in this, one of our greatest problems.

CERTAIN PROBLEMS IN THE TREATMENT OF DISEASES OF THE THYROID GLAND

Since George W. Crile, Cleveland, (Journal A. M. A., Sept. 13, 1924), has carried out a definite plan of management for the prevention of goiter, there have been no deaths from so-called hyperthyroidism; the occasional death—approximately one in 100—is due to some complication, e. g., heart failure, cerebral hemorrhage or pneumonia. Goiter is among the most preventable of diseases; its treatment, in whatever form it presents itself, is accurately defined. Prevention is achieved by the administration of iodine throughout adolescence and pregnancy. Simple goiters should be excised if they cause pressure or are adenomatous. Malignant goiters should be excised if possible; or they should be decompressed, followed by radiation. For hypofunction, the essential product that is lacking should be added. For hyperfunction, the essential product that is overabundant should be diminished.

THE CASE AGAINST GASTRO-ENTEROSTOMY

At the present time, in the opinion of Donald C Balfour, Rochester, Minn. (Journal A. M. A., Aug. 23, 1924), there is no conclusive evidence that any operation is more useful than gastro-enterostomy in cases of chronic duodenal ulcer, except in carefully selected cases. Although partial gastrectomy may be indicated in cases in which there is a persistent recurrence of the ulcer after gastro-enterostomy, since this recurrence is certainly not over 3 per cent, it would be difficult to justify partial gastrectomy in 100 cases of nonmalignant disease in order to prevent such a small percentage of recurrence, particularly when such recurrence can be satisfactorily dealt with by secondary operation. Gastro-enterostomy is not destructive. The operation, in suitable cases, can be depended on to give excellent and permanent results in more than 90 per cent of the cases; and it has a distinct advantage over all other operations for peptic ulcer in that after the ulcer has completely healed, the anastomosis may be disconnected with ease and safety, if desired.

THE JOURNAL

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Devoted to the Welfare of the Medical Profession of Georgia.

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Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

HEALTH CONFERENCE

A health conference was held, which was unusual and unique in character and is of special interest to every physician who practices medicine because he loves and realizes his responsibilities toward humanity.

This conference was called by the Health Education Division of the American Child Health Association at the request of the Department of Biology and Public Health of the Massachusetts Institute of Technology at Cambridge, Mass., June 23-28, 1924.

The delegates present represented medical doctors, teachers from grammar schools through the universities, physical directors, child health demonstration workers, nutrition experts and a large number who represented health sections of Women's Clubs, Parent Teachers' Associations, etc. It was a notable gathering of people interested in child welfare and typically representative of the importance which this subject now receives in the United States.

It seemed to be the consensus of opinion that the physicians, professional health workers and the teachers must correlate

their efforts in order to reach the large public.

To put a general health program over in a community is a big undertaking. "The job is too large for any one organization to do alone. The physician, the health education or nutrition worker, the physical director, the teacher, the nurse, the health officer, the extension worker, the individual, each must be a contributing factor, each loosing sight of self and selfish interests, ceasing to insist upon due credits for everything done and always keeping in mind that it is the results that are wanted. The progress of a community along health lines depends upon how soon the health activities cease to be put up in small packages."

—TOEPEL

HAVE YOU JOINED?

For the sixth time since the Armistice was signed, the American Red Cross asks you to pledge your name and contribute your dollar in support of its peace-time work. Vital as the war work was, the activities which the organization is now carrying on, though less spectacular, are no less important, and it is your part as a patriotic American to do your share toward keeping them alive.

What are these activities? Well, there is for instance, disaster relief. Last year, news of the terrible catastrophe which wiped out two of Japan's most populous cities had scarcely reached America before ships loaded with Red Cross rice, milk, canned goods, clothing, blankets and medicines had cleared from Western ports for the relief of the sufferers. Within a little over three weeks, the Red Cross had raised ten million dollars for this relief work, and fourteen ships had sailed.

The Japanese earthquake was only one—though the greatest—of 220 disasters in relief of which the Red Cross participated last year, at home and abroad. And in the past 43 years it has expended \$33,000,000 in such relief. With an organization which penetrates the most remote sections of the country, with stores of relief supplies located at strategic points, with a corps of

trained workers ready to respond at a moment's notice, and with the experience of thousands of past disasters to guide it, the Red Cross can respond instantly and with the utmost effectiveness when the call for help comes.

But in the last analysis, the effectiveness of the work is dependent on one thing—the measure of support which it receives from the American people. Without funds, without the yearly membership dollars, the organization would fall to pieces, the work could not be done. It may not be particularly disastrous, you think, if your dollar isn't paid in this year. There are millions

of other dollars that will be paid in. But remember that if your dollar is withheld, by just so much the Red Cross ability to respond to the cry of distress is weakened.

Some time between Armistice Day and Thanksgiving—November 11 and 27—you will be called upon to renew your membership—to reaffirm your faith in the ideal of service for which the Red Cross stands. Help for the disabled World War veterans, First Aid, Public Health Nursing, Life Saving, Courses in Home Hygiene and Care of the Sick—these, with Disaster Relief, are the activities for which your dollar will be used. Do your share therefore, and join during the Eighth Roll Call.

District and County Societies

The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific

papers and discussions which the society shall consider worthy of publication.—Constitution and By-Laws, Chap. VII, Sec. 15.

1. Demmond, E. Carson, Savannah.
2. Wood, A. W., Albany.
3. Greer, Chas. A., Oglethorpe.
4. Blackmar, Francis B., Columbus.
5. Clay, Grady E., Atlanta.
6. Hawkins, T. I., Griffin.

7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Joiner, B. O., Tennille.
11. Simmons, J. W., Brunswick.
12. Cheek, O. H., Dublin.

SECOND DISTRICT MEDICAL SOCIETY

The Second District Medical Society held its Semi-Annual meeting in Pelham, Georgia, September 12, 1924.

After the invocation, by one of the local ministers, another minister made the welcome address. His address was mixed with humor and thoughts of serious import. He spoke of the three professions greatest in his mind—the teacher, the physician, and the preacher; with influence in the building of the well rounded, ideal man, through the body, mind and spirit. All of these professions being so closely linked, that their fullest cooperation is important in the perfection of the human race.

The scientific program was begun with a paper by Dr. W. W. Jarrell, of Thomasville, on "The Attributes of the Heart's Action," in which he dealt briefly, yet to the point, with the three main attributes of the heart's action; conductivity, tonicity,

and rhythmicity. When these three conditions, or one of them fail we have cardiac bankruptcy, and the reserve must be safeguarded if we are to have perfect function.

Dr. C. W. Strickler, Atlanta, in discussing the paper stressed the importance of adequate function or compensation as a basis of diagnosis or prognosis, rather than organic lesions, in heart conditions. "A safe rule to follow, except in old cases, is the causative factor as fundamental."

Dr. Wood reported a case illustrating Dr. Strickler's point which was explained by Dr. Strickler that some are normal while others may be tuberculous, kidney, thyroid disease or nervous.

Dr. Jarrell spoke of long standing toxemias, focal infection, etc., may result in tachycardia and reported a case as illustration.

Dr. C. W. Strickler, of Atlanta, had as his subject, "Chills in Typhoid Fever." He classified chills in typhoid as: 1. Those

due to intestinal irritation, as constipation and the preliminary fermentative conditions; 2. Those occurring in the second or third week as serious and urged leukocyte count as aid to diagnosis; 3. If no blood changes are noted, nor physical changes, but chills occur, and fever is prolonged beyond the fourth week, we may be sure of the typhoid septic case or relapse. These cases of sepsis should be taken out of bed and fed. The lack of feeding is the most important factor, if not the only factor responsible for typhoid sepsis. He advocated dilute HCl to aid stomach digestion. Dr. C. H. Watt suggested the possibilities of mercurochrome intravenously in typhoid. Dr. J. O. Elrod stressed early feeding in typhoid but urged caution to give foods readily digested in the stomach because the foods digested in the intestines will be poorly handled and distention will result.

Dr. William S. Cook, of Albany, presented a paper, both interesting and instructive, on "Abdominal Diagnosis from the General Practitioner's Standpoint." He made about fifteen points for differentiation in abdominal diagnosis, going clearly into each and urged a more careful study on the part of all men, particularly the general practitioner, in order that fewer mistakes may be made. He urged that all diagnoses be made as early in the attack as possible and that where operations must be done, the delay be as short as an early diagnosis will permit. Dr. T. C. Davison commented upon the importance of this subject and commended Dr. Cook in its presentation but called to attention that in appendicitis there is no rise of temperature early in the attack and never a cardinal symptom. He also stressed the importance of considering gall bladder diseases in upper abdominal conditions. Dr. Watt also commended the paper and mentioned the lack of fever in early appendicitis. He lessened in the mind the importance of the leukocyte count but urged a differential count. Dr. A. D. Little called attention to the necessity for careful inspection of other viscera, particularly in women when operating for appendicitis or even other conditions. Dr. Wall suggested care-

ful diagnosis before operation. Dr. Gordon Chason urged more careful attention to histories as a means of avoiding mistakes and arriving at more obscure conditions, producing abdominal pain.

Dr. T. C. Davison, of Atlanta, on "Treatment of Goitre" dealt with the classification of goitres as simple, colloid, exophthalmic or toxic, adenomatous or those with malignant tendencies. The simple type, or endemic goitre, exists largely in young girls and is due to lack of iodine in water or food and is treated by the administration of iodine. These cases can be largely prevented by proper treatment of expectant mothers. In colloidal type the condition is more mechanical than functional and operation is the only treatment. The exophthalmic, or hyperactive, are not always enlarged. In these cases the basal metabolism is an important functional activity. These patients should be put to bed, kept free from excitement, given a non-stimulating diet, foci of infection cleared up, liquids given freely and iodine given before operation. Dr. Bunce discussed the paper and urged a correction of the title from "Goiter" to "Thyroid Disorders," as the thyroid disturbance is in many cases secondary and are symptoms rather than diseases. He stressed thorough diagnosis as to whether we have hypo or hyper thyroidism, which would greatly modify the treatment. The metabolic rate should be used as an aid. He suggested the use of the X-ray in reducing the activity of the hyper-active cases. Dr. M. H. Stewart called attention to the affects of diseased tonsils on the thyroid activity of young girls. Dr. Watt predicted that in the future prophylaxis will be the watchword in eliminating disorders of the thyroid but urged the continuation of surgery as the best method of treatment. Dr. Wall stressed the advantage of radio, on the treatment of these cases. Dr. Moore suggested that more attention be given to the other conditions which are fundamental in thyroid disturbances. Dr. Strickler thinks that the fundamental disturbances are responsible and that X-ray and radium may ultimately be the method of treatment but

that at present he is having his cases operated upon when medical treatment does not avail. He spoke of a case of chronic appendicitis as illustration of remote causes. He spoke of the relation of the thyroid to pelvic conditions. He says that thyroidism is a symptom and not a disease. Dr. Davison, in closing, replied to Dr. Moore, saying that thyroidism is an "Endocrine Dysfunction." He urges attention to the thyroid first in cases where there are pelvic disorders (with thyroid) of the toxic type, as surgery is dangerous in these cases.

Adjournment for luncheon.

After luncheon, Dr. Jarrell submitted the following resolution: "Resolved that this body go on record as disapproving the 440 yard dash as now conducted in the District Athletic Association for the reasons: 1. The men are immature and untrained; 2. The race is too strenuous for those in their condition to indulge in; and further, that a copy of this resolution be sent to the District Athletic Association." After much discussion and a motion to amend the resolution to read "without physical examination to determine fitness" which was lost, and the original resolution was carried.

Dr. J. O. Elrod, President of the Medical Association of Georgia, in his message on "Organization" spoke of the county society as the portal of entrance into the State Association and stressed the importance of organization for the perfection of the ideals of the medical profession as a whole and the advantages to the individual member of the organization and the mass of humanity he served by reason of the alignment with these progressive organizations. Dr. Elrod emphasized the full cooperation with all public health work, civic organizations and clinics, looking to the elimination of diseased conditions among the poor and looking toward the prevention of disease. He spoke of the position Georgia holds with reference to the percentage of the profession who are members of the Association.

Dr. Toepel discussed the subject stressing the greatest activity of the local societies, with regular meetings, activities of a civic nature, in cooperation with all women's or-

ganizations, civic bodies or lay associations, the women's auxiliary of the State Association and getting the "Hygeia" into the public minds. Dr. Bunce, Secretary of the State Association, commended the cooperative spirit on the part of most of the local societies but urged the greater activity and the necessity for a fuller membership if all of the activities of the State Association are to continue. Dr. Stewart spoke of the movement in some counties to cut rates on wholesale operations and clinics and moved that this practice be condemned. The motion was carried. Dr. Elrod, in closing, spoke of the Medical Reserve Corps as being of value to its members.

Dr. Theodore Toepel, of Atlanta, on "Exostosis of Calcanium" spoke of the etiology of this condition and mentioned focal infection as being indirectly responsible, as may be syphilis and gonorrhea, and directly by heavy weights, etc. The treatment may be affected by the removal of the infection but removal by surgery may be required. He presented several X-ray photographs illustrating the condition.

Dr. J. A. Redfearn, of Albany, on "Southern Pediatric Seminar Notes," prefaced his paper by a few remarks about the Seminar and its work and the personnel of those conducting it. He then dealt at random with several subjects of frequent occurrence, as conclusions, going in to the etiology, the most important of which is tetany, which is produced by low calcium balance in metabolism. He urged fundamental prophylaxis in children in the beginning in cases of intracranial hemorrhage, faulty metabolism and deformities. In diarrhoea the regulation by diet, the free administration of fluids, either by mouth, rectum or through the peritonium. If cow's milk is given babies, particularly as the main or only diet, acid milk is advocated to neutralize the excessive salts in cow's milk. Dr. Moore emphasized the importance of the routine examination of the ears in babies as this may be a frequent disturbing condition. Dr. Wilkinson urged the use of acid milk as ideal and also advocated the removal of infection as in adenoids and tonsils because of their tendency to produce acidosis. Dr.

Elrod complimented the Seminar and advocated artificial milk feeding when mother's milk is insufficient, preferring acid milk. He also advocated castor oil as the quickest and best eleinant in the intestinal type of convulsions.

The report of the Committee for the program at the next meeting at Bainbridge, which had been voted at the luncheon, was called for and was as follows:

"Headache from Eyestrain and Treatment by Correction," by Dr. Moore, of Thomasville.

"Prophylaxis and Treatment of Pulmonary Tuberculosis," by Dr. Wilkinson, of Bainbridge.

"Surgery of Pulmonary Diseases," by Dr. A. D. Little, of Thomasville.

A subject on Public Health, by Dr. Samuel T. Darling, of the Rockefeller Research, Leesburg.

"Pediatrics," by Dr. Covington, Moultrie.

The local society at Bainbridge will invite two outstanding men from without the District as has been the custom heretofore.

The meeting was adjourned after giving a rising vote of thanks for the splendid entertainment by the local men and ladies.

The above will appear practically as given on the book of minutes and read at the next meeting. I trust we may continue to have such good programs and such good and free discussions. Every paper was read and freely discussed. I am sure that those attending this meeting are better men than before they came.

Respectfully submitted,
A. W. WOOD, Secretary,
Second District Medical Society.

FULTON COUNTY MEDICAL SOCIETY

A very interesting meeting of the Fulton County Medical Society was held at the Academy of Medicine, 32 Howard St., Atlanta, on July 7, at the usual hour of the scientific meetings. Dr. W. E. Person presided, and about 80 members were present.

Reports of cases of the "Removal of Foreign Bodies from the Bronchi" were given

by Dr. M. S. Equen. Discussed by Dr. Lokey. Dr. Bartholomew gave a very interesting presentation of a "Congenital Dislocation of Both Knee-Joints." Discussed by Dr. Hodgson. The Clinical Talk was by Dr. Geo. F. Klugh, on the "Bacteriology of Acute Dysentery in Children." Discussion by Drs. Anderson and Cook. The paper was read by Dr. Stewart Roberts, and dealt with the "Management of a Case of Advanced Myocardial Failure." This very interesting subject was discussed by Drs. Bunce, McGarity, Shanks, C. W. Roberts, Wagnon, Thrash and Donaldson.

Under the head of new business Drs. W. R. Smith and L. S. Patton, elected to membership at the last regular meeting were presented to the Society and given certificates of membership.

Dr. Person asked for the co-operation of the members in reviewing the books given to the Library by Dr. A. H. Bunce, and that all members respond if possible to the card gotten out by the Library Committee, requesting Journals, to complete the files.

Dr. Arch Elkin, Chairman of the Publicity Committee, expressed his pleasure at having received two articles for the Paper, and explained that only articles covering subjects that had not already been exhausted, would be published. Members were asked to notify the Secretary or Dr. Elkin, himself, of their preparation of these articles for publication.

There was no further business.

Respectfully submitted,
GRADY E. CLAY, Secretary.

FULTON COUNTY MEDICAL SOCIETY

On Thursday evening, August 7th, 1924, the semi-monthly meeting of the Fulton County Medical Society was held at the Academy of Medicine, 32 Howard St., Atlanta, at 8:00 P. M. In the absence of the President, Vice-President and the Chairman of the Board of Trustees, Dr. H. R. Donaldson presided.

A very interesting half hour was given to the discussion of the proposed cemetery

to be located in the northern part of the County. After the expressions of the opinions of the State Geologist and the State Chemist, the discussion was general concerning this matter, and the Society was unanimous in the belief that such a location would be of great detriment to the water supply of the city of Atlanta. Dr. J. L. Campbell made the motion that the Society condemn the location of this cemetery. Seconded. Carried. Dr. M. T. Benson made the motion that the lay press be acquainted with the action of the Society through the Publicity Committee of the Fulton County Medical Society.

Here the regular order of business was resumed, and applications for membership were received from the following: Drs. Chas. G. Boland, W. M. Gober, B. B. Steedly.

Dr. C. C. Aven reported a case of "Primary Lung Abscess with Pneumothorax Treatment," which was discussed by Drs. Holmes, Bunce and A. B. Elkin. The next case report was "Abdominal Hemorrhage from a Ruptured Graafian Cyst" given by Dr. J. L. Campbell. A very interesting Clinical Talk on "Treatment of Fractures near the Elbow" was by Dr. T. P. Goodwyn. The paper of the evening was read by Dr. Dan Elkin and was on the "Treatment of Varicose Veins." Discussion: Drs. Waits, W. A. Selman, C. W. Roberts, H. R. Donaldson, J. L. Campbell, and W. R. Smith.

As there was no further business to come before the Society at this time, the movement was in order to adjourn.

Respectfully submitted,

GRADY E. CLAY, Secretary.

NINTH DISTRICT MEDICAL SOCIETY

The Ninth District Medical Society held its 32nd Semi-Annual meeting at Gainesville, Wednesday, September 17, 1924. The meeting was presided over by the President, Dr. Myron B. Allen, Hoschton. Rev. H. S. Cobey offered the Invocation. Dr. J. B. Rudolph, Gainesville, gave the Address of Welcome with response by Dr. J. K. Burns, Sr., Clarkesville.

The scientific program, composed of the following papers, was unusually interesting:

1. Dr. W. L. Mathews, Winder, "Eclampsia."
2. Dr. R. P. Adams, Bethlehem, "Some Interesting Obstetrical Cases."
3. Dr. J. R. Simpson, Gainesville, "Eye Symptoms in Constitutional Diseases."
4. Dr. Rufus T. Dorsey, Atlanta, "Formulaes in Diagnosis."
5. Dr. T. F. Abercrombie, Atlanta, Commissioner of Health for Georgia, "The Medical Society's Relation to the State's Needs in Medical and Health Subjects."
6. Dr. C. D. Wheelchel, Gainesville, Councillor Ninth District, "Some Conditions of the Urinary Tract Frequently Overlooked."
7. Dr. O. D. Hall, Atlanta, "Radium Treatment for Cancer of the Cervix and Uterine Hemorrhage from Benign Causes."

All the papers were excellent, showing thorough preparation, and brought out full discussions. As it was Dr. Dorsey's first visit to the Ninth District the time for his paper was not limited.

Dr. J. O. Elrod, President of the Medical Association of Georgia, was present and responded with a beneficial talk, besides discussing the papers freely.

We also had Dr. Allen H. Bunce, Secretary of the Association, with us. We always welcome Dr. Bunce to our meetings as he comes with enthusiasm for the Association and interests in the workings of our Society.

Two resolutions were passed: 1. Deploring the loss of our member on the State Board of Health. 2. One of sympathy for Dr. J. D. Mauldin on the death of his wife and father.

A delicious dinner was then served at the Princeton Hotel.

Gainesville was selected as the next place of meeting.

JESSE C. BENNETT, M. D.,
Jefferson, Secretary.

WARE COUNTY MEDICAL SOCIETY

The Ware County Medical Society was entertained at a banquet given by the Staff of the A. C. L. Hospital, at the Hospital, Wednesday, September 10, 1924. Interesting papers were read by Drs. William F. Reavis, Waycross, and George N. MacDonell, Waycross. The A. C. L. Hospital is located in Waycross and is an accredited Hospital.

A CORRECTION

In giving a list of the physicians on the fishing trip given by the First District Medical Society in the September Journal the name of Dr. R. L. Miller, of Waynesboro, was left off. We are glad to make this correction as Dr. Miller was the life of the party.

NEWS ITEMS

The friends of Dr. E. O. Shellhorse will be interested to learn that he has removed from Calhoun and is now practicing in Dalton. Dr. Shellhorse is a member of the Gordon County Medical Society.

Dr. D. A. Bagley, formerly of DeSoto; Sumter County, has located in Austell, Cobb County. His new residence address is 309 Washington Street and Office address 307 Washington Street.

The many friends of Dr. Young C. Lott, of Albany, will regret to learn that he has left Georgia and is now practicing in Florida. His new address is 202 Bedford Building, Miami, Florida. Dr. Lott is limiting his practice to gastro-urinary diseases.

Dr. W. C. Pumpelly is being welcomed back to Macon after an absence of several months. Dr. Pumpelly has just returned from Rochester, Minnesota, where he has been connected with the Staff at the Mayo Clinic. He intends installing complete X-ray equipment in his offices in the Grand Building, Macon.

Dr. George L. Cook, pediatrician of Atlanta, has been appointed to represent the medical interests of Atlanta to cooperate with the Georgia Milk Producers' Associa-

tion. This Association is endeavoring to provide better milk for the State.

Dr. R. Henry Baldwin has opened offices at 41 Forrest Avenue, Atlanta, for the practice of general medicine and surgery.

Dr. James Kenneth Fancher has removed his offices to 20 East Linden Avenue, Atlanta. His practice will be limited to internal medicine.

Dr. M. H. Blandford has moved from Columbus, Georgia, to 1522 South 19th St., Birmingham, Alabama. Dr. Blandford is a brother of Dr. W. C. Blandford, of Atlanta.

Dr. Enoch Callaway of LaGrange, has been appointed to have charge of the laboratory work at the Dunson Hospital, LaGrange.

Dr. Thomas B. Gay has been named as director of the medical service for the Athens Child Health Demonstration, Athens.

Dr. William Mayes Gober announces the opening of offices at 436 Peachtree Street, Atlanta. His practice will be limited to obstetrics.

Dr. Zach W. Jackson has opened offices at 436 Peachtree Street, Atlanta. Dr. Jackson's practice will be limited to internal medicine.

Dr. Garnett W. Quillian has been granted a permit to establish an 18-bed hospital at the corner of Fourth and Peachtree Streets, Atlanta.

Newnan, Georgia, is to have a hospital which is to be called the Newnan Hospital. It is being built at a cost of about \$75,000 and modeled after the Wesley Memorial Hospital, Atlanta.

Americus, in Sumter County, is practically free of all infectious and contagious diseases. This announcement was made by Dr. J. W. Chambliss, City Health Officer, and Dr. J. W. Payne, Commissioner of Health.

Plans have been completed for the alterations and additions to St. Joseph's Infirmary, on Courtland Street, Atlanta, which will cost approximately \$81,000. Addition-

al wards and private rooms and remodeling of the operating room are included in the plans.

A new annex for Grady Hospital, Atlanta, is being planned at a cost of \$150,000. This is to be four stories and will contain wards for the care of patients suffering from contagious diseases.

The Hudson Towers Hospital-Hotel is now nearing completion and will be opened early next year, representing a capital investment of \$3,500,000. This Hospital-Hotel is being built at 1,000 Park Avenue, New York.

A NEW CHAIR AT JEFFERSON MEDICAL COLLEGE, PHILADELPHIA

In recognition of the far reaching developments of bronchoscopy in the diagnosis and treatment of diseases of the lungs and of esophagoscopy and gastroscopy in the diagnosis and treatment of diseases of the esophagus and stomach, the Board of Trustees and Faculty of The Jefferson Medical College have created a new Chair to be known as the Department of Bronchoscopy and Esophagoscopy. Dr. Chevalier Jackson, formerly Professor of Laryngology in The Jefferson has been elected to the Professorship of the new Department. Dr. Fielding O. Lewis has been elected to fill the Chair of Laryngology vacated by Dr. Jackson.

THE WOMAN'S AUXILIARY OF THE TROUP COUNTY MEDICAL SOCIETY

The Woman's Auxiliary of Troup County Medical Society was organized at LaGrange, August 14, 1924, by Mrs. C. W. Roberts, of Atlanta. Mrs. H. R. Slack, of LaGrange, served as temporary Chairman.

After some discussion as to the time and manner of electing officers, it was decided to have a Nominating Committee and have its report at that time, since it was feared there might not be so many present at a

later meeting. A Nominating Committee was then appointed, being composed of the following:

Mrs. I. H. Lane, LaGrange, Chairman.
Mrs. T. W. Taylor, West Point.
Mrs. B. H. Brock, Hogansville.
Mrs. W. H. Hadaway, LaGrange.

Mrs. Roberts explained the purpose of the organization and was assured cooperation by the Woman's Auxiliary in Troup County.

The report of the Nominating Committee was as follows:

Mrs. John Poer, West Point, President.
Mrs. C. W. Harvey, Hogansville, Vice-President.
Mrs. W. R. McCall, LaGrange, Recording Secretary.
Mrs. Hugh McCullough, West Point, Corresponding Secretary.

Motion was made and carried to elect the officers offered by the Nominating Committee by acclamation. The new President then took the chair and appointed the following Committee on Constitution and By-Laws:

Mrs. R. O. Lee, LaGrange, Chairman.
Mrs. B. H. Brock, Hogansville.
Mrs. C. O. Williams, West Point.

The time and place of meeting was discussed. Motion was made and carried that the Auxiliary meet with Troup County Medical Society. Since the wife of every doctor in the Troup Medical Society is automatically a member of the Auxiliary, the Secretary of the Auxiliary was instructed to request the Secretary of Troup County Medical Society to include the wives of the doctors when notifying them of meetings of the Troup County Medical Society. Mrs. Roberts requested that a report of this meeting be promptly sent to Mrs. J. N. Brawner, President, Fulton County Medical Auxiliary.

Motion for adjournment was made and carried.

Respectfully submitted,
Mrs. JOHN POER, President.
Mrs. W. R. McCALL, Secretary.

**MINUTES OF THE RAILWAY SURGEONS ASSOCIATION OF GEORGIA,
HELD IN SAVANNAH,
AUGUST 20, 1924**

Meeting of the Railway Surgeons Association of Georgia was called to order by President Dr. Henry M. Michel at 10 o'clock.

Invocation was offered by Rev. Norman Cox of Savannah, Ga. Hon. Paul E. Seabrook, mayor of Savannah, welcomed us in behalf of the city of Savannah. Dr. E. R. Corson of Savannah delivered Address of Welcome in behalf of the Railway Surgeons of Savannah. Dr. J. R. Garner, Chief Surgeon, Atlanta, responded to the Addresses of Welcome.

It was moved and carried that the privileges of the floor be extended all visiting physicians.

Dr. Henry M. Michel, Augusta, delivered his Presidential Address, which was able and timely, embodying all the principal issues confronting the Railway Surgeons of the State of Georgia. Address will be published in the Surgical Journal, our official organ.

Dr. J. W. Palmer, delegate to the Medical and Surgical Section of the A. R. A., reported progress on foreign transportation. He stated that as he understood the situation, the Interstate Commerce Commission left the interpretation of the foreign transportation law up to the legal department of each individual railroad as to its legality. Some of the railroads ruled it was legal, others ruled it was illegal, while the remainder had not ruled on it. Some railroads were given foreign transportation to those only that would reciprocate. He felt from what he learned that some railroads would not grant it, even if the Interstate Commerce Commission ruled its legality. Lawyers and Surgeons are in the same class relative to foreign transportation. The ice has been broken and by co-operation of all the State Railway Surgeons Associations in connection with the American Railway Surgeons Association we will secure our recognition for foreign transportation, legitimate fees

and Independent Surgical Department of each railroad.

Chief Surgeon Jos. M. Burke of Petersburg, Va., delivered an able address on "Traumatic and Industrial Hernia."

Dr. Joe P. Bowdoin of Atlanta was absent, but sent in his paper on "Forgetfulness" by Dr. J. F. Fortnight of Atlanta, who read this paper before the convention.

Dr. E. R. Corson of Savannah read an interesting paper entitled, "Complete Luxation of the Carpal Semilunar Bone Without Fracture of the Other Bones of the Wrist." This paper was illustrated with X-ray pictures.

Dr. T. S. Clay of Savannah and Dr. J. R. Garner of Atlanta discussed this paper.

Dr. Guy T. Bernard of Augusta was absent, but his paper on "Contusion of the Abdomen" was read by Dr. A. R. Rozer of Macon, and discussed by Dr. Cleveland Thompson of Millen.

Report of Secretary and Treasurer, Dr. J. W. Palmer, was rendered as follows:

Report of Secretary and Treasurer

The expense of financing an organization of four or five hundred members is not much more than one of a hundred members.

My financial report shows that I had to overdraw on the funds of the Association to the amount of \$32.63. Every year previous to this year we had a balance. In 1923 there were 93 members who paid their dues, and this year there were only 62 members who paid their dues. This shows a very small percentage of the 350 Georgia Railway Surgeons who affiliate with this organization. Those who attend these meetings realize the benefit, the success and progress this organization is making in securing the recognitions and consideration due Railway Surgeons besides the good we have accomplished for the railroads.

The Railway Surgeons Association being composed of Surgeons from the various railroads puts us in a position to do, say, act and accomplish things we cannot in individual Railway Surgeon organizations. Therefore, I earnestly and sincerely hope

that every Railway Surgeon in Georgia will co-operate with this Association by paying their dues and affiliating themselves with it, remembering that all who pay their dues receive free the Surgical Journal, the official organ of the American Railway Surgeons Association. This Journal is devoted to Traumatic and Industrial Surgery. This Association is making history and needs your assistance.

Financial Report

I herewith submit my financial report for the Associational year ending August 20th, 1924.

RECEIPTS

To balance on hand Montgomery County Bank, close last meeting.....	\$ 27.64
To cash received since last meeting, dues from 62 members.....	186.00
To overdraft in Montgomery County Bank	32.63
	<hr/>
	\$246.27

DISBURSEMENTS

Sept. 4, 1923. To cash clerical work, Mrs. H. Riddle, Vou. No. 1.....	\$ 15.00
Oct. 10. To cash printing, Montgomery Monitor, Voucher No. 2.....	14.25
Oct. 12. To cash Postmaster, G. B. McIntyre, Voucher No. 3.....	21.92
Oct. 16. To cash printing, Montgomery Monitor, Voucher No. 4.....	1.50
Oct. 20. To cash Sub. Surgical Journal, 55 members, Voucher No. 5.....	55.00
Oct. 22. To cash exchange Montgomery Co. Bank, Voucher No. 6.....	3.60
Jan. 31, 1924. To cash exc. Montgomery Co. Bank, Voucher No. 7.....	1.00
Mar. 22. To cash salary Secy. and Treas., Voucher No. 8.....	100.00
July 9. To cash printing, Montgomery Monitor, Voucher No. 9.....	11.50
Aug. 13. To cash printing program, Montg. Monitor, Voucher No. 10.....	12.50
Aug. 14. To cash clerical work, Mrs. Harry Riddle, Voucher No. 11	10.00
	<hr/>
	\$246.27

Yours very truly,

J. W. PALMER, Secy. and Treas.

Drs. Cleveland Thompson and W. K. Smith were appointed as auditing committee, who reported back that Secretary and Treasurer's report was correct as rendered.

Dr. J. R. Garner of Atlanta and Dr. Henry M. Michel of Augusta were appointed as a committee to meet with the American Railway Surgeons Association which convenes in Chicago to confer with them relative to operating the American Railway Surgeons Association and the respective State Railway Surgeons Associations of the United States on the same basis as the American Medical Association and respective State Medical Associations are operated.

Drs. A. R. Rozar, J. R. Garner, with the President and Secretary, were appointed to select papers for symposiums at our next meeting, also those who will open discussions on these symposiums.

The following motion was offered by Dr. J. R. Garner and passed:

Notice of a motion to change the constitution and by-laws of the Railroad Surgeons Association of Georgia.

"I move to amend the constitution and by-laws of this Association so as to fix the date and place for holding the annual meetings on the day previous to the regular annual meeting of the Medical Association of Georgia, and at the same meeting place. This amendment to be voted upon at the next regular meeting of this Association."

Election of Officers

President—Dr. Cleveland Thompson, Milen.

First Vice-President—Dr. Jabez Jones, Savannah.

Second Vice-President—Dr. M. M. Stowe, Jesup.

Third Vice-President—Dr. W. K. Smith, Pembroke.

Secretary and Treasurer, term not expired.

Dr. A. R. Rozar was elected member of the Executive Committee for a term of five years.

The Executive Committee is as follows:

Dr. Thos. H. Hancock, Atlanta.
 Dr. A. R. Rozar, Macon.
 Dr. Henry C. Whelchel, Douglas.
 Dr. A. G. Fort, Atlanta.
 Dr. J. M. Spence, Camilla.

Dr. A. R. Rozar and Dr. J. W. Palmer were elected as delegates to the Medical and Surgical Section of the American Railway Association which meets in Atlantic City.

The time and place of next meeting will be in Atlanta the day before the meeting of the Medical Association of Georgia.

No further business the Convention adjourned to go to Tybee for bathing and banqueting.

Yours very truly,

J. W. PALMER, Secy. and Treas.

COMMUNICATIONS

To the Editor:

You are aware that Georgia is not in the registration area for births, while Virginia, North and South Carolina, Kentucky, Tennessee and Mississippi have reached the standard required by the United States Census Bureau, and have been admitted to the registration area for births.

The Medical Association of Georgia in 1922 demanded of the State Health Department that all births and deaths be registered as is required by the state law. Georgia had registered only eighty-five per cent of the births in 1923.

The reports of Registrars of births and deaths from nearly every section of the state indicate that they have more trouble in securing the registration of births by physicians than by the midwives, which is not creditable to the medical profession.

The State Board of Health had hoped to ask for an investigation of the birth records early in 1925, but the dropping off of the number of records filed has made an investigation hardly worth while since the birth rate will be much lower in 1924 than in previous years.

The Vital Statistics Law (Georgia Laws 1914, page 157), makes it my duty to enforce the provisions of birth and death registration.

Shall Georgia get in the registration area for births, or shall Georgia be heralded all over the United States as one of the few states where birth registration is not enforced?

The answer is in the hands of the physicians.

Sincerely yours,

T. F. ABERCROMBIE, M. D.,

Commissioner of Health.

September 17, 1924.

To the Editor:

On last Friday I went to Louisville, Jefferson County, accompanied by and with the kind assistance of Dr. R. L. Miller, of Waynesboro, revived the Jefferson County Medical Society. The following named were elected:

President, Dr. S. C. Ketchen, Louisville.

Vice-President, Dr. John R. Lewis, Louisville.

Secretary-Treasurer, Dr. J. D. Pilcher, Wrens.

This re-organized Society is scheduled to meet on September 12th. While there was not very much enthusiasm manifested—probably due to past failures—I trust that the organization will continue.

I am working on Columbia and Lincoln Counties, with a view of either establishing a society there or getting those men to place their membership with a nearby Society. My next effort will be directed toward Hancock, where an organization is needed and should be maintained. With Wilkinson I do not know what can be done. Dr. Miller has promised me a helping hand, and I trust that some solution can be arrived at.

Yours sincerely,

S. J. LEWIS,

Councillor, Tenth District.

September 1, 1924.

Medical Progress

With the cooperation of our associates we propose to publish under "Medical Progress" abstracts from current medical literature of general interest to the

profession. Members of the association are invited to contribute to this Department.

Anderson, W. W., Pediatrics
Ballenger, E. G., Urology
Block, E. B., Neurology and Psychiatry
Clay, Grady E., Ophthalmology
Dowman, C. E., Neuro-Surgery
Eguen, M. S., Otology, Laryngology and Rhinology
Fitts, Jno. B., Internal Medicine
Greene, E. H., Surgery

Hodgson, F. G., Orthopedics
Holmes, Walter R., Gynecology and Female Urology
Jones, Jack W., Dermatology
Klugh, Geo. F., Clinical Pathology
Landham, J. W., X-Ray and Radium
Pruitt, M. C., Proctology
Thrash, E. C., Internal Medicine
Waits, C. E., Surgery

Graham, E. A., Cole, W. H., and Copher, G. H.; Rontgenological visualization of the gall bladder by the intravenous injection of tetrabromphenolphthalein. *Annals of Surgery*, 1924, LXXX, 3.

A chrysaline sodium salt of tetrabromphenolphthalein is injected intravenously which permits visualization of the gall bladder with the Rontgen-ray. The authors have done considerable work on this subject and have evolved a solution which gives satisfactory shadows in a large number of cases and at the same time reduces the unpleasant effects upon the patient.

The theory of the action of the substance, and the theory upon which the work done by these investigators was based, is that, if a substance which is opaque to the Rontgen-ray would be excreted into the gall bladder by means of the bile, a shadow should be produced which would permit an accurate visualization of the gall bladder. It is necessary therefore, that the functional capacity of the liver is capable of secreting the substance in the bile; that the cystic duct be open; that the gall bladder is capable of concentrating the substance after

its entrance. Following this line of thought, it would be expected that normal gall bladders would present the best shadows, and pathological gall bladders would give little, if any, shadow. The experience of the writers prove this to be correct. Gall stones, also adhesions, have been diagnosed by the method as outlined.

Technic: Two injections are made, one-half hour apart, with a syringe. The crystals should be well chosen and great care used in filtering and sterilizing the solution. The average amount given for a patient weighing 120 pounds or over, is 5½ grams of the sodium salt in 40 c. c. distilled water. Extravasation of the solution into the tissues must be avoided. Rontgenograms are taken at 4, 8, 24, and 32 hours. No severe toxic effects have been noted. No urinary changes have been seen.

The article is illustrated with clear photographs of X-ray plates showing the gall bladder shadows. The work done is commendable and shows a pronounced forward step in the study of gall bladder conditions with the Rontgen-ray.

E. H. GREENE.

OBITUARY

Dr. J. C. Wilson, one of Valdosta's best known professional men, died at his home on North Patterson Street, August 30, 1924. Dr. Wilson had been practicing in Valdosta about thirty years and was loved by all who knew him. At his request members of the Lowndes County Medical Society, of which he was a member, acted as active and honorary pall bearers.

Dr. G. C. Laney died at his home in Moultrie, August 29, 1924, following an illness of two years. Dr. Laney was one of the first physicians to locate in Moultrie. He later moved to Hartsfield and made his home there until about two years ago, when he was forced to retire on account of failing health. He then moved back to Moultrie.

Dr. Edward L. Bardwell, after an illness of several years, died at the Wesley Memo-

rial Hospital, Atlanta, September 6, 1924. Dr. Bardwell was graduated from the University of Virginia in 1860, and the Richmond University, Medical Department, in 1864. He was Assistant Surgeon in the Confederate Army. Dr. Bardwell was 86 years old and had been practicing in Talbotton since 1865.

Dr. F. J. Welch, aged 70, died at his residence in Newnan, August 23, 1924. Dr. Welch had been in ill health for the last few years. At one time he was one of the community's leading physicians but retired from practice several years ago.

Dr. P. P. Comey died March 10, 1924, at his home in Augusta. At the time of Dr. Comey's death he was a member of the Richmond County Medical Society.

LOCATION FOR SALE

At the death of Dr. James H. Wroth, there is an opening for a physician in Jemez Springs, New Mexico. Jemez Springs is a mountain resort with a population of about 200, tributary population 1000 to 1500. Two

new hotels have been built recently, one catering especially to health seekers. The managers of both hotels will send their guests to the physician taking Dr. Wroth's place. Dr. Wroth's suite of three offices, library, furniture, equipment, drugs and supplies are immediately available, terms being satisfactory. For further information address J. H. W., care The Journal.

LOCATION WANTED

A doctor, who passed the Georgia State Board Medical examination in 1913, but moved up North soon afterwards, desires a location in Georgia which will pay expenses from the start. He is now a member of his County and State Associations and wishes to make the change on account of the severe winters in his present location.

—Location B, care Journal

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For Sale: One office sterilizer (gasoline burner), one white enamel operating table. All in perfect condition. Address Mrs. T. G. Turk, Reynolds, Georgia.

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A STUDY OF THE ETIOLOGICAL FACTORS IN TWO HUNDRED AND TEN CASES OF MENTAL BREAK-DOWNS.*

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and

A. F. Brawner, M. D.,

Atlanta, Georgia.

The purpose of this paper is to show the relative frequency of the various etiological factors in mental break-downs. No doubt, in the majority of cases, excepting, of course the direct infections of the brain, there are several factors at work, but for the purpose of classification, prognosis and treatment, it is necessary to determine the main causative factors in each case.

We are here reporting 210 cases that entered the hospital consecutively during the past three years. Many of these patients, as will be seen later on, were suffering from acute recoverable conditions, and were patients who never enter the public asylums. It thus happens that the State institutions get a larger per cent of the chronic insanities than is shown in this report.

The classification used is somewhat at variance from those found in text books, and from those used by other institutions, and is based to some extent on the etiological factors in each case, appending however,

the main mental manifestations, so as to make the classification more descriptive and understandable.

The Psychoses Due to Direct Infections of the Brain.

As is well known, there is a very distinctive group of mental break-downs due to the direct invasion of the brain, mostly the cortex, by micro-organisms. These may be classed as "brain infection psychoses." Of the 210 cases here reported, 33, or over 15 per cent, were due to direct infections of the cerebral cortex. Of these, 21 were due to syphilis; 11 to epidemic encephalitis; and 1 to the hypothetical germ that is supposed to cause the rapidly fatal disease known as Bell's mania. The mental symptoms presented by these patients depend on the intensity of the cortical infection, together with the inflammatory and degenerative changes that occur, and the part of the cerebral cortex mostly involved. When the causative factors in the mental break-downs due to the direct invasion of the cortex by the various micro-organisms become known, the mental symptoms presented by the patient become of minor importance, as they are merely symptoms of the inflammatory and degenerative changes taking place in the brain, colored to some extent by the patients natural disposition and by psychic experiences that he has had in the past. Of the 21 syphilitic cases, 19 were definitely paretics, and in 2, the mental condition was

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

due to a gummatous condition in the brain.

It is very probable that syphilis is the main etiological factor in a small per cent of the melancholias, and also in a few confusional, delusional and manic states, even when the blood and spinal fluid show negative reactions and there are no other evidences of syphilis. These cases really belong to the "Infectious-toxic-psychoses," as the spirochets located in the walls of the blood vessels, kidneys and other organs finally produce toxins which damage the higher psychic cells producing the mental symptoms manifested.

The diagnosis of the encephalitic cases was based largely on spinal fluid examinations in connection with symptoms presented and the course of the disease. In practically all cases of cortical epidemic encephalitis, there is an increase in cells and in globulins in the spinal fluid and a negative Wasserman reaction. Of the 11 patients, 2 died, 6 recovered and 3 partially recovered, developing a post encephalitic mental state, due no doubt, to organic degenerative changes in the cortex. Six of the patients were confused, mildly agitated and disoriented; 4 were delusional, the mental symptoms resembling those frequently found in the first stages of paresis. The psychoneurotic case was interesting, in that two years after the onset of the disease, there was an increase in globulins and cells in the spinal fluid.

The Infectious-Toxic-Psychoses

Fifteen patients were classed as suffering from "Infectious-toxic-psychoses." These cases are usually classed as the "Infectious-exhaustive-psychoses," but after studying many of these patients I am of the opinion that infectious-toxic is more descriptive of the real condition. In these patients the infection is localized in some part of the body, maybe the teeth, tonsils, gall bladder, etc., and finally it brings about certain metabolic and chemical changes in the tissues, and a toxin is formed which has a selective affinity for the higher brain cells, thus causing an acute mental break-down. In 2 of the cases, the infection was in the pelvis of the kidney; in 6, at the roots of

the teeth; 2 in the tonsils; 1 in the antrum; 1 an osteomyelitis, 1 dengue fever, and 2 following flu.

The mental symptoms presented by the infectious-toxic cases are fairly uniform, and the majority of the cases completely recover though about 5 per cent die, and about 10 per cent become permanently deranged, due to permanent organic changes in the brain cells. In those that recover, the disease runs a course lasting from two to four months. These patients usually are confused and disoriented, sometimes hallucinated, become very thin, and often have to be fed with a tube. Recovery often takes place rapidly, suggesting the formation of a specific antitoxin neutralizing the toxin which caused the mental break-down.

Auto-Toxic Confusional and Hallucinated States

This condition may be defined as an acute mental break-down due to various etiological factors which produces in the body a toxin which has a selective affinity for the psychic cells in the cerebral cortex. It occurs at all ages after puberty, but most frequently after middle life. The symptoms, as a rule, come on rather suddenly, run a fairly definite course, about 80 per cent of the patients recovering completely in from two to four months. Of the 210 cases considered in this paper, 35, or 17 per cent, were placed under this classification. We thus see that this is a fairly common condition. The etiological factors in these 35 cases were as follows:

Arterio-renal diseases	17
Involution	8
Intestinal stasis	8
Pellagra	3
Puerperium	2
Endocrine	1

The arterio-renal conditions usually occur about middle life and are nearly always associated with a mild degree of nephritis. There is albumen and casts in the urine. The mental break-down in these patients is nearly always rather sudden, and is manifested by confusional and disoriented states, and occasionally hallucinations are present. The tongue is coated, the breath

and perspiration foul, and there is every indication of an auto-toxic condition. The fact that the great majority of people who suffer from arterio-renal conditions do **not** break-down mentally, shows that in all probability that in the cases that do break down mentally there is a specific auto-toxin formed which attacks the brain cells. About 85 per cent of these arterio-renal cases recover. During the period of involution there are often metabolic changes taking place which finally produce auto-toxins that attack the brain cells. The course of the disease in these patients is about the same as in the arterio-renal cases and complete recovery often occurs. Four of the cases were classed as due definitely to intestinal stasis and the associated auto-intoxication. The auto-intoxication resulting from pellagra, the puerperium and endocrine disturbances need not be commented on. In all of these auto-toxic states, however, where a mental break-down occurs, it is very probable that an auto-toxin which has a specific affinity for the psychic cells in the cerebral cortex is formed which causes the mental symptoms manifested.

The Drug Psychoses

In this series of 210 cases there were 21, or 10 per cent classed as chronic intoxications, due to alcohol and drugs. This does not include delirium tremens, a condition which only lasts a few days and is more of a delirium than a psychosis. Eleven of these drug psychoses were due to alcohol, 7 of which were in a confusional and disoriented state, and 4 were in a delusional state. Ten were due to the prolonged ingestion of various drugs, such as bromides, bromidia, chloral, cannabis indica, hyoscine, etc. All of these patients were confused and hallucinated and all completely recovered.

The Melancholias

Twenty-two, or about 10 per cent, were classed under the head of melancholia. The symptoms in this condition are fairly uniform, but, as will be seen the etiology in these cases is extremely varied. No doubt, most of these patients have a constitutional makeup tending toward a melancholic con-

dition, and it is only manifested when some stress comes along and precipitates an attack. The main etiological factors in the 22 cases in this report are as follows:

Pregnancy	1
Involution	10
Auto-toxic	2
Pellagra	1
Defective constitutional make-up	2
Emotional shocks	2
Endocrine disturbances	2

In practically every case of melancholia there are several etiological factors at work, and the patients should be given a very careful examination to determine what are the main causes of the mental break-down.

Chronic Delusional States

Eleven patients were classed under the head of chronic delusional states. No doubt most of these patients also start out in life with a defective constitutional make-up. They are not perfectly adapted to the stresses demanded by modern sociological conditions. When some unusual strain begins to manifest itself the delusions begin to make their appearance, and finally they become so fixed that the patient has to be confined in an institution. In these 11 cases the main precipitating cause of the onset of the psychoses were:

Involution	2
Defective heredity	7
Menopause	1
Nephritis	1

The Manic-Depressive Psychoses

Under this classification were grouped 36, or about 16 per cent of the patients. In the past, no doubt, many other distinctive psychoses were classed as cases of mania. In some cases of cortical epidemic encephalitis the patient presents manic symptoms, but we are not justified as classing them as cases of mania. Some of the auto-toxic confusional states present manic symptoms, but such cases are not really mania as now understood. In the majority of the manic-depressives, the patients have what is known as an exaggerated syntonetic temperament. It has been said that if we were going to make an Adam we would give him a syntonetic temperament. He would then be the

ideal man. When this temperament is exaggerated it might be said that he then has the manic-depressive temperament. He is energetic, active, always on the go, wants things done in a hurry, impatient. As is well known a person with this temperament, and who keeps it in bounds, is the man who does real constructive work in the affairs of life, but if some unusual stress comes along he is then liable to break down into a state of mania, followed by a state of depression. The main etiological factors in the 36 cases of manic-depressive conditions were as follows:

Defective constitutional makeup	23
Hard work and defective food	3
Puberty	3
Psychic experiences	7

Practically all cases of manic depressives recover from the attack, though there is always the possibility of a recurring attack, and frequently a patient will have several attacks during a life time. In a few of the patients the attack is so severe that it causes permanent damage to the brain and the mental symptoms become chronic.

Dementia Precox

It is shown that of the 210 cases here reported, 23 are classified as dementia precox. According to N. D. C. Lewis, of Washington, who bases his conclusions on 601 autopsies of dementia precox patients, the hebephrenic and catatonic prococes show in practically 100 per cent of the cases definite constitutional deficiencies. The heart is small and the walls of the ventricles thin; the aorta and larger blood vessels are smaller and more delicate, indicating that these patients have from the beginning of life not the power for sustained exertion that the average individual has. He believes that this condition is fundamental and that it exists from birth. The average weight of dementia precox heart is one-third less than normal.

In the internal secretory glands Lewis found regressive atrophy in the gonads in all cases, even in those of short duration. In the adrenals the cortex is thin and the histologic zones are ill-defined, indicating

a hypo-adrenalism or dys-adrenalism. The thyroid in most cases is also involved in a way that suggests an interrelation of function with the gonads and adrenals. Lewis' studies, together with those of Mott and others show that dementia precox in practically all cases is fundamentally due to a defective constitutional make-up. The patient's heart is too small, blood vessels too thin, gonads defective and adrenals poorly developed. In this defective state he tries to adapt himself to the stresses of life, but when some emotional shock, infectious disease or some other strain comes along the higher psychic cells crumble under the load, resulting in a mental break-down. Of the 23 cases classified as dementia precox in this report the main etiological factor in 17 was classed as defective constitutional make-up and 6 psychic and sexual experiences. It is very probable that all of these patients really had a defective constitution, and the psychic and sexual experiences acted more as precipitating causes of the mental break-down.

Epileptic Psychoses and Constitutional Inferiorities

There were 2 patients classed as epileptic psychoses, and in each case a defective constitutional make-up was present.

There were 2 cases of constitutional inferiority. This condition, as its name indicates, is always due to a defective constitutional make-up of the individual.

Senile Psychoses

There were 10 patients suffering from senile psychoses which, of course, needs no explanation. Six of the patients were demented, 2 confused and 2 agitated.

Summary and Conclusion

In this study of 210 cases it will be seen that in 35, or about 15 per cent, the mental break-downs were due to a direct invasion of the brain by micro-organisms. In about 7 1-2 per cent the psychoses were due to focal infections in other parts of the body. We thus see that 22 1-2 per cent of the mental break-downs here reported were due to micro-organisms which invade the body, and if the whole truth was really known, it is very probable that at least 10 per cent of

the other cases, classified differently, were also due to unknown focal or general infections. This makes it very probable that at least 33 per cent of all mental break-downs are due to infections. The next most important etiological factor is defective constitutional make-up. Fifty-four patients, or about 25 per cent, show that this was the main factor in causing the psychoses, but in reality many of the other patients show a defective constitutional make-up but it is not given as the main etiological factor. It is interesting to note that about 10 per cent of the cases were due to the ingestion of alcohol and drugs. It is also interesting to note that 16 per cent of the cases were acute auto-toxic confusional and hallucinated states. After studying these auto-toxic patients for a number of years, I am of the opinion that in these abnormal metabolic conditions there is occasionally produced a toxin, no doubt, very complex in nature, and one that we cannot isolate, which has a specific affinity for the higher cells in the cerebral cortex, causing in them certain chemical changes resulting in the confused and disoriented state shown by the patient. Some chemicals as well as germs, have a selective affinity for certain tissues, and when there happens to be produced one of these toxins in the body that attaches itself to the psychical cells in the brain, mental symptoms are the result. The fact that most of these patients recover rather suddenly also suggests that their recovery is due to the formation of an antitoxin, the same in principle that occurs in the cure of the infectious diseases.

About 5 per cent of the cases were due to old age, cerebral softening, etc., and 3 per cent to endocrine disturbances, which does not include the endocrine abnormalities found in dementia precox. About 10 per cent were due to various causes, such as defective food, prolonged physical work, (usually in the hot sunshine), the puerperium, etc.

About 7 per cent of the cases were due to physic shocks, or unbearable situations. The mental mechanism brought forth in

these psychoses are best explained according to the theories of Freud and Adler. I have been impressed by the fact, however, that most of these patients are not exactly normal in their constitutional make-up. The chemistry of their bodies is not exactly right. A well balanced individual instinctively avoids those detrimental psychic experiences that his weaker brother is unable to avoid; and being well and capable he does not have to worry about his inferior physical or mental qualities. We thus see, that in these patients there is nearly always a defective body chemistry in addition to the detrimental emotional experiences.

Mental patients are sick people and it is the duty of the physician to discover the cause of the illness in each individual case, and when this is done, a rational line of treatment can be carried out.

THE RELATION OF ADHERENT PREPUCE TO EPILEPSY*

E. Bates Block, M. D.,
Atlanta, Ga.

In writing of epilepsy it seems desirable to define the exact limitations of the field that this titular abstraction is intended to cover—more particularly is this so for the reason that some prefer the term “the epilepsies” and others place cases in the category of spasmophilia, while others include spasmophilia under epilepsy or “the epilepsies.” In the present paper it will be understood that the word “epilepsy” is intended to include all cases in which there are repeated convulsions, without apparent precipitating cause the patient being in apparently good physical health between attacks.

In a study of 500 cases of epilepsy occurring in the private practice of the writer, 55 cases had adherent prepuce. Of these 38 were males and 17 females. The age at the onset of the first attack and at the time of consultation, are given in the following table:

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

	Onset	Consulta- tion
0- 1 years of age	15 cases	3 cases
1- 2 years of age	5 cases	3 cases
3- 4 years of age	7 cases	9 cases
5- 6 years of age	7 cases	3 cases
7-10 years of age	6 cases	12 cases
11-15 years of age	9 cases	14 cases
16-20 years of age	3 cases	6 cases
21-25 years of age	1 case	1 case
Over 25 years of age	2 cases	4 cases

It will be seen by referring to the table that over one third of the cases began having convulsions before three years of age and that forty out of the fifty-five were not over ten years of age. No account has been taken in this paper of the fact that many of the cases not included had previously been circumcised, and presumably some of them because of adherent prepuce and others for phimosis, while still others presumably as a part of their religious ritual. There were a considerable number of cases of phimosis in the records which were not included as the prepuce could not be retracted and the presence or absence of adhesions could not be determined. Other factors may have played a part in the establishment of the epilepsy as it is well known that not all cases of adherent prepuce have epilepsy.

Heredity.—Out of the 55 cases of adherent prepuce associated with epilepsy there was a history of similar heredity in 6—of dissimilar heredity in 9, and both similar and dissimilar heredity in 1 or a total of 16 cases, of these 8 occurred on the mother's side and 3 on the father's side and 2 on both the father's and mother's side. In the other 3 cases the history did not state whether it was maternal or paternal heredity. The influence of heredity is permissive and not mandatory, as Southard remarks, and must be classed not as a determining cause but a predisposition.

Tuberculosis in the family was formerly supposed to be a predisposing factor in the production of epilepsy. A history of the presence of tuberculosis in the family was present in 3 of this series. It may be definitely stated that tuberculosis does not predispose to epilepsy. The assumption arose

from the fact that so many cases of epilepsy died from tuberculosis. This however was due to the fact that bromides aggravate an existing tuberculosis and probably predispose to germ infections.

Time of Day.—Out of 31 of the series it was noted that the spells occurred only while awake in 4, only while asleep in 5, and both day and night while awake and asleep in 22.

Defective mentally.—Out of the 55 cases, 15 of them were backward or defective mentally, as shown either by mental tests, school records, and delay in sitting alone, teething, walking and talking.

It is more than probable that if all were known every case of epilepsy has an abnormality in the brain. Many of the cases when carefully studied show some evidence of brain injury, cortical agenesis, previous encephalitis, meningo encephalitis, etc., which give insufficient evidence for a definite diagnosis when seen years after the onset of their trouble. We have not yet been able to disprove the original statement of Hippocrates that "the etiology and pathology of epilepsy are in the brain." Epilepsy is said to occur in 25 per cent of feeble minded children and it is probable that they have not the cerebral control to resist the exciting causes of convulsions.

Trauma.—There was a history of injury to the head in 9 cases and to other parts of the body in 5 cases, but such accidents and such injuries are in the histories of almost every child's life and can probably be disregarded.

Emotional.—In 2 cases the patients had a history of some emotional disturbance preceding the spells but it is doubtful if it played any part in their production.

Masturbation.—This was present in 2 cases and is probably another evidence of deficient cerebral control.

Eyes.—No routine examination of the eyes was made but in 7 cases there were either myopia, hypermetropia, astigmatism or muscle imbalance.

Ears.—In 9 cases there was a history of ear troubles, either otorrhoea or deafness.

Nose.—In 4 cases there were adenoids.

Throat.—In 11 cases there was a history of sore throat or enlarged tonsils.

Teeth.—In 1 case the first spell occurred while teething at age one year.

Diet.—The attacks seemed to be influenced by diet in 3 cases.

Constipation.—In 18 cases the patients were constipated which is probably not out of line with the average run of patients.

Auto intoxication was present in 7 cases.

Worms.—In ten cases there was either a history of worms or worms were present at the time of the examination. Of these 5 were ascaris lumbricoides, 4 were hookworm and 2 were pin worms. (One case was double infection.)

Menstrual periods.—In three cases the time of occurrence of the attacks seemed to be during or near the menstrual periods.

Severity of attacks.—Out of the 55 cases, 32 had only major attacks, 3 had only minor attacks and 18 had both major and minor attacks. 2 were Jacksonian in type.

Other diseases.—Of other diseases recorded in the histories prior to the time of consultation but not necessarily prior to the onset of the convulsions we may mention the following: measles in 34 cases; mumps in 15 cases; whooping cough in 27 cases; typhoid fever in 4 cases; malaria in 4 cases; pneumonia in 4 cases; syphilis in 12 cases. It was unfortunate that in the majority of the histories the exact dates of these diseases were not recorded. They would therefore have no value unless compared with the normal incidence of these diseases among children in general. In the syphilitic cases however they were probably all inherited and as they exceed the normal expectancy of syphilis in the average of a large number of people examined it may have contributed as an etiologic factor in the production of epilepsy. The question may fairly be asked if syphilis may not possibly have played some role in the production of adherent prepuce?

While the author has not been able to find any statement in the literature as to the frequency of adherent prepuce in the average run of children, it certainly has not amounted to anything like the frequency in

his cases, that occurs in epilepsy. Adherent prepuce occurs in 11 per cent of the writer's cases of epilepsy and apparently plays a part in the production of the convulsions. If this be true we would naturally wish to know how they can cause cerebral symptoms? We must quite frankly confess that there is no satisfying explanation. The theory of summation of stimuli is plausible. It is well known that if we stimulate the cortex of the brain with (let us say) a mild galvanic current, but of a strength not sufficient to cause a muscular contraction, and have the same experience in using a galvanic current on the muscle represented by that cortical area, that when we apply both currents the one central, the other peripheral, that we get a contraction. This is called summation of stimuli; and all theories of reflex epilepsy are based upon this form of reasoning. However, more than a mere cessation of fits may follow the freeing of adhesions. Children, who are backward mentally, often show surprising mental progress after circumcision, or merely freeing adhesions by traction or a probe, provided they are kept free after this procedure. Unfortunately the freeing of adhesions does not cure in all cases in which this is done and while many of the cases have had no recurrence of attacks or have improved since being freed from adhesions there were practically always other therapeutic measures also adopted, and it is not possible to say with certainty what was responsible for the improvement. The interest of Science and in reality the interests of future generations are constantly being sacrificed to the good of the individual, and our humanitarian feelings. To determine the efficacy of one method of procedure in treating a patient, no other method can be used at the same time. Therefore the only conclusion that can be drawn from this work is to state that the frequency of adherent prepuce in epilepsy is 11 per cent.

DISCUSSION ON THE PAPERS OF DRS. J. N. BRAWNER AND E. BATES BLOCK

DR. CHARLES DOWMAN, Atlanta: I am glad Dr. Block's paper was better than his title. I read his title and made it a point to be here to see what he would bring out. I think the paper is most excellent.

He has discussed briefly some of the features of epilepsy, which I think brings out many more important points than the incidence of adherent prepuce. Dr. Block mentions that it never has been proven that Hippocrates was wrong when he said that in epilepsy there is organic brain disease. Some very interesting work has been done, particularly by Dandy of Baltimore, in the injection of air into the ventricles of the brain, with the idea of getting some knowledge of the localization in lesions of the brain, and some very interesting things have been shown in connection with epilepsy. Dandy has found, for example, that not infrequently the ventricles of the brain can be depicted very nicely by injecting air into them, and that this will show certain abnormalities, like this for example (illustrating on blackboard)—a widening out at certain points, sometimes an enormous widening.

In doing craniotomies on epileptics he made this observation, and I have had a few cases in which I have made a similar observation, that these cases when one exposes the brain will show an enormous collection of subarachnoid fluid, so much so that at one time it was thought that this fluid accumulating over the cortex would stimulate, or precipitate the attacks. In a lot of these experiments it has become evident that the reason this fluid collects is because of old inflammatory lesions in the brain itself, old gliosis with contraction of the brain, a lessening of the volume of the brain, and that these are purely compensatory conditions in order to fill up the cranial cavity. With the brain shrunken in volume the cavity must be filled with other things. This has been proved by the injection of air in the cases of epilepsy, in sufficient cases to justify Dandy in making the claim that practically all brains in epileptic patients have some pathology within them.

So far as adherent prepuce, diseased tonsils and so forth are concerned incidentally, they are irritating conditions and so far as possible it is well to correct them. In epilepsy in adults, as a rule, the cause can be traced. As a rule, if you study the case carefully, and epilepsy is only a symptom, it will be found that these attacks are post-traumatic affairs with evidence of serious trauma, syphilis of the nervous system, brain tumor, postencephalitic affairs, arteriosclerosis, and perhaps the last of the cases such as Dr. Brawner mentioned, the toxic, infectious cases.

There is no question but that true epilepsy has a brain pathology and the question of whether these patients have an adherent prepuce or an impacted wisdom tooth or an infected appendix is purely incidental.

DR. L. M. GAINES, Atlanta: There are two points in Dr. Brawner's paper which are brought out well by his experience. One is the very great importance of the diagnostic survey of every individual who shows abnormality of conduct. I do not know of any class of cases in medicine that requires more time and more care in an effort to reach the cause than does the case showing mental disturbance. It is necessary first to take a most careful history, frequently from the friends and family of the patient as well as from the patient himself when he is able to give it, and then it is very important to make a very careful physical examination, for, as he has brought out so well, the role the cryptic infections play is often striking. A very thorough laboratory examination of the blood and urine, and frequently of other fluids which we may think necessary should be made, examining particularly the spinal fluid. Finally the mental examination itself is of value, but perhaps that is of less value than anything else. The particular type of disturbance which is shown is sometimes not indicative of the trouble the patient has.

Another point I wish to mention is the incidence of

epidemic encephalitis. In a very definite number of the cases which Dr. Brawner reports encephalitis was present. It seems to me the profession has not recognized the occurrence of the diagnostic points in encephalitis. I have had opportunity to see patients from all parts of the state. They are not confined to the cities, but from all over the State of Georgia and from all over the United States. A certain percentage only shows psychotic disturbances, many show only neurologic disturbances. It is a definite infection by an organism which is closely related to the bacillus of influenza. Many of the cases will show an onset very similar to that of influenza. There will be more or less fever, frequently a nasal discharge, aching, prostration, and usually a diagnosis of influenza is made. There is no way of telling whether such a case is ordinary influenza or one of encephalitis. That particular group of symptoms which we may call influenza is really encephalitis itself at the onset stage. Later, organisms, probably through the nasal mucosa, find their way into the brain. Upon the localization in the brain depends the symptomatology. If it is in the frontal region, in the cortex, we have a great variety of mental symptoms, more particularly a delirium. The occurrence of cranial nerve palsies, particularly of the third and seventh, the occurrence of somnolence which is marked in the day-time, with insomnia and restlessness at night, the occurrence of fever continuing on to the period in which we get the neurological symptoms, is very important.

One point on which I cannot agree is the appearance of the spinal fluid. Fully 50 per cent. of the cases do not show any disturbance in the spinal fluid. The cell count and other examinations will be normal, but we cannot rule out encephalitis because we find a normal spinal fluid.

DR. GEORGE L. ECHOLS, Milledgeville: Dr. Brawner is to be congratulated, and given out thanks for bringing this subject before us, and for the large amount of work he has done.

A few years ago in mental hospitals we were writing histories, making diagnoses, and accumulating statistical data; however, all of this helped the patient but little. At present very careful physical, neurological and mental examinations are made, but the special stress is placed on **ETIOLOGY**. What brought on the mental disease. The patient at one time was normal—now insane. What is the association, circumstance, or surroundings that invited, or brought on the abnormality? These are the things we try to discover.

In studying the findings in these cases, we find things we can do to these patients and they get well.

For example, a young woman had given birth to three children in rapid succession. On admission she was confused, crying, and thought she was to be killed, somewhat anemic, clotting time six to seven minutes, and along with this, a rather severe gynecological condition. After rest and medical attention, a gynecological operation was performed with splendid results. After this we had a healthy young woman whom we sent home apparently cured.

About a year ago we studied another young woman, unmarried, about twenty-one, in good general health, but on admission was confused, said she had lost her religion, her soul was lost, that she should be killed. She was crying, very much agitated, and suicidal. She had been reared under very good circumstances, but had some rather unusual sex ideas. Several months before admission, she had sex relations one time with her eleven year old brother, and following this she seemed to have developed the above enumerated ideas of self-condemnation. The whole affair was talked over with her, she was told that she had done something that was not commendable, however, we all do wrong, and that she was no exception.

She appeared to view the whole situation from a more reasonable point of view, and made much mental improvement.

We could cite many other such cases.

DR. R. T. DORSEY, Atlanta: Referring to Dr. Block's paper on epilepsy, I think we all agree that epilepsy is a symptom and not a disease and therefore we should look closely into its etiology. I think that any case of epilepsy presenting itself after forty should cause us to think down this line: **First**, past injuries to the brain, either recently or in years gone before. **Second**, syphilis, cerebrospinal syphilis, gumma or paresis. **Third**, brain tumor. **Fourth**, arteriosclerosis, which explains the epileptic seizures that occur in myocarditis, in Adams-Stokes disease. **Fifth**, chronic alcoholism. **Sixth**, postencephalitis and meningitis. **Seventh**, hepatic and intestinal toxæmias. **Eighth**, endocrine disease, parathyroids, thyroid and pituitary pressure. **Ninth**, reflex causes, in which we have adherent prepuce, worms and so forth, and the reason they cause epilepsy is that there is a deficiency in the motor cells of the brain which would not give rise to epilepsy were these irritations taken away. **Tenth**, the unknown types. This formula holds good for epilepsy after forty—if you wish to make it all-inclusive, add infantile and intra uterine encephalitis, and injuries at birth, and this will lead to the etiologic cause in the vast majority of cases. To say that certain convulsions are epilepsy only because the origin is undetermined is not correct.

DR. J. P. BOWDOIN, Adairsville: I wish the Doctors would give us the results of their experience with the three arsphenamines in syphilis, the arsphenamine, the neoarsphenamine and the sulpharsphenamine.

I would also like to know what they consider the best method and the results that have been obtained in their practice, whether the intravenous, subcutaneous or intraspinal methods have been used.

I wish to thank especially Dr. Gaines for his discussion on encephalitis. The best information we have is that this is on the increase in Georgia. I recently had some correspondence with Dr. Michael Hoke asking if this condition was not increasing, because of the number of cases he has seen in consultation recently.

DR. J. N. BRAUNER, Atlanta (closing on his paper): In his discussion Dr. Gaines mentioned the fact that about 50 per cent of the cases of encephalitis do not show any changes in the spinal fluid. That is true if one takes all cases, but in this communication I simply reported the cases that showed mental symptoms. There are cases of cortical encephalitis and our experience is that practically all of these show increased cells and increased globulin in the spinal fluid. This is true when the encephalitis involves the cortical portion of the brain but not when it involves the central ganglia.

Dr. Echols brought out the importance of the etiology in studying mental disease. We pay very little attention to the symptoms the patients present, except that it helps us to discover what is the matter with the patient. The symptoms the patient presents are simply signs of some disturbances that are going on inside his body and are affecting his brain.

Dr. Bowdoin asked a question in reference to sulpharsphenamine. We have used principally during the last few years the neoarsphenamine. We have never used the sulpharsphenamine. Until a few years ago we used the straight arsphenamine and the intraspinal method, according to the Swift-Ellis and Ogilvie method. We have treated a few cases with intravenous injections and then used spinal drainage. As nearly as I can tell, I have obtained better results with the intraspinal than with the other methods of treatment. In dealing with paresis the best one can expect is amelioration of the symptoms. The patients do not get entirely well. They have remissions, sometimes for

eighteen months or two years but they do not get well. In dealing with an exudative syphilis of the meninges we sometimes get beautiful results in the treatment of these cases, and so far as we can see these patients remain without symptoms of syphilis indefinitely but whether they are perfectly cured or not I cannot say.

DR. E. BATES BLOCK, Atlanta (closing): In reply to the discussion of my paper I wish to say in regards to Dr. Dorsey's remarks, that what he said was quite true, but had nothing to do with epilepsy. If he noticed, I defined epilepsy so that people would not be confused, and would not confuse epilepsy with many other diseases in which convulsions occur. He has given a list of diseases in which convulsions occur but we do not define these as epilepsy. We do not diagnose brain tumor as epilepsy intentionally. It may occur when we see these cases before any other symptoms have developed. I defined epilepsy as being a disease in which there are repeated convulsions without any apparent precipitating cause, and the patient being in good health between attacks. That definition is essential to an understanding of what we mean by epilepsy.

Answering Dr. Bowdoin's question about the arsphenamin group, many of us use different methods and get about the same results. Many precede the intraspinal injection with intravenous and take the blood and inject it intra-spinously. Then the question is, which method did the work. We must never assume that in nervous syphilis the patient has not syphilis all over his body. They have. If we cure the nervous syphilis and not the rest we have not cured them at all. My preference is for an intravenous injection and then if one wishes to take the blood and inject it intraspinal, very good—I have no objection. You theoretically concentrate the drug where it is most needed. Sachs found in two thousand cases that the results were no different where the intravenous and then the intraspinal method was used and where the intravenous was used alone. Myers found that many men who were giving intraspinal injections were not giving any arsenic in these. In a certain number of minutes after these injections arsenic is found in the blood, but if one waited an hour, as was usually done, there was not a particle of arsenic in the blood, and therefore when the blood was injected in that way no arsenic was injected. It disappears from the blood in a certain number of minutes and unless the blood was taken at its maximum intensity there would be no drug, they would be merely giving the serum without any arsenic in it. With any drug that is used in that way it is necessary to know at just what minute it has its maximum intensity in the blood, and to take the blood at that minute to inject intraspinal.

SURGICAL PROBLEMS IN CARCINOMA OF THE BREAST*

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An important phase in the discussion of cancer in any part of the body is that of an educational campaign, which aims to increase the number of cures by the utilization of the facts already at hand regarding the disease rather than by relying on the development of something new.

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

It is estimated that there are eight thousand deaths annually from cancer of the breast, the majority of which are preventable, provided the present known facts are utilized. The chief problem of the educational campaign is to educate the general public to go immediately to a competent physician for examination on the first appearance of a suspicious lesion such as a discharge from the nipple, crack or fissure which does not heal within a few days, lump and ulcer, that these signs are frequently beginning cancer, and that all cases of cancer are curable, if recognized and treated early enough.

Careful and thorough examination and early diagnosis of every case presenting signs and symptoms suggestive of cancer of the breast is of the utmost importance. The symptom which Rountree put first, in diagnostic importance is adhesions between the skin and growth underlying it, not the coarse and obvious infiltration met with in advanced cases, but a much more delicate involvement, resulting in a faint dimpling of the skin, which is often of so slight a degree as to be visible only after careful examination under suitable conditions of light. In its earliest stages it can be made to appear by grasping the breast on each side of the suspicious growth and trying to push the skin away from the tumor; looking along the surface of the breast, being held in this way, brings out the slightest irregularities, not hitherto apparent. If this sign be present—and it nearly always is, a definite diagnosis of cancer may be safely made with the utmost confidence, regardless of the presence or absence of the contraction of the nipple, alteration in the shape, size, or consistency of the breast, enlargement of gland, change in the vascular supply, or any of the classical symptoms. The absence of adhesions to the skin does not mean that the tumor is benign; the growth may be too small, or, if the breast is large and fat, the distance to the skin may be too large to demonstrate the faint dimpling.

Biopsy, or the removal of a portion of the

tumor for diagnostic purposes is of importance only in confirmation of clinical appearance, and symptoms suggestive of malignancy of so small a portion of the tumor can be used in making microscopical section that a non-malignant report is of little or no value to the surgeon. A. J. Oshsner, referring to the partial excision for diagnostic purposes, says it exposes the patient to the danger of death from metastases, and he resorts to this only where the removal of a growth possible but not probably malignant would result in the unnecessary sacrifice of a limb or important organ or would produce an extensive deformity. He insists upon the importance of prevention, which he considers far more urgent than treatment.

In the treatment of cancer of the breast, the profession is divided into five groups:

1. Those confining their efforts to the knife alone.

2. Those confining their efforts to the actual cautery alone.

3. Those resorting to the knife or cautery first, then following the radical operation with X-ray treatment.

4. A smaller but increasing number who use X-ray treatment as a preliminary, followed by radical extirpation of the growth and then thorough post-operative radiation.

5. A still smaller number who believe in a massive dose of pre-operative X-ray treatment, followed by extirpation of the growth.

Experience and statistics show that the proportion of permanent cures, in the cases where the tumor has been removed by the actual cautery, has been much greater than those in which the knife was used. This is especially true in apparently hopeless cases.

The reasons why the actual cautery should result in a greater per cent of permanent cures are:

1. The heat is carried far beyond the point where the tissue is severed.

2. Excision with the knife may carry cancer cells in the non-infected portion of the wound.

3. It has been shown experimentally that the tissue outside the seared surface, which

has been exposed to the red hot cautery, is not in a position to act as a cancer graft, while, after excision with the knife, any portion of the infected tissue beyond is sure to grow.

4. In operation with the knife one is constantly removing as little as possible for cosmetic reasons.

If the actual cautery is to be used, the regional lymph glands, as well as the breast, must be removed by the cautery except the making of the skin incision. An accurate dissection is possible with the cautery. The wound usually heals by first intention. Secretion is more abundant and drainage must be longer. The object of this method is to avoid implantation and the destruction of cancer cells during excision. It produces a strong tissue stimulus, which, by cleansing the wound and erecting a strong wall of inflammation, is capable of destroying any cancer nest which might have been left. The operation is lengthened and recovery is slower, but recurrences are fewer.

Whether the knife or cautery is used the most painstaking wide removal with remote glandular and fascial dissection will tend to increase the percentage of cures and extension of life. The mortality caused by the radical operation is so low as to promote a greater desire on the part of the consultant to demand a radical operation.

RADIATION: Thorough radiation treatment of cancer tissue will devitalize cancer cells, so as to interfere with their further inoculation, further development, or, in some cases, the destruction of the growth. It also stimulates fibrosis of tumor growth. This is sufficient justification to give a single intensive X-ray treatment seven to ten days before operation, which may, or may not, be followed by post-operative radiation. The stimulation of fibrosis and tumor necrosis probably explains the long and encouraging palliative treatment in inoperable cases.

The disadvantages of the pre-operative radiation are:

1. The stimulation of fibrosis causes adhesions of the anatomical parts and there-

fore makes dissection much more difficult.

2. During the stage of reaction following radiation capillary bleeding is much more profuse.

3. The reaction following radiation causes more or less temporary discomfort to the patient.

4. The length of time, suspense and expense frequently causes great inconvenience to the patient.

5. Some surgeons consider the possibility of the patient migrating to some other doctor or frequently into the hands of a quack.

6. The decrease in the size of the tumor may lead the patient to hope he has been cured and cause the operation to be put off until it is too late.

RECURRENCES: Pre-operative X-ray treatment in single massive doses, and excision of growth by knife or cautery, followed by post-operative treatment, probably gives the best results in most cases. Recurrences, involving a diffuse cutaneous surface, is best treated by X-ray alone.

POST-OPERATIVE COMPLICATIONS: The risk of a brawny arm, or decrease in function, or pain in the region of scar, following radical operation, is the price the patient must pay for extension of life or a permanent cure.

CONCLUSION: 1. In order to decrease the mortality, we must encourage the public to seek early advice on the first appearance of discharge from the nipple, crack, fissure, etc., that these are frequently beginning cancer, and that all cases of cancer are curable if recognized and removed early enough.

2. Excision with the cautery gives a greater per cent of cures than excision with the knife.

3. Pre-operative radiation increases the percentage of cures. Post-operative radiation is very valuable but not so effective as pre-operative. All cases of cancer are curable provided the removal is early enough.

MALIGNANCY*

T. Byron King, M. D., Sandersville, Ga.

The subject which I have chosen for this paper is probably as old as the history of man. Any number of theories have been and still are being advanced, as to the cause of malignancy, and innumerable remedies have been heralded as a cure. Victims have been a constant source of income to the quack and the patent medicine vendor. Many heated discussions and bitter controversies have been indulged in by members of the medical profession, both as to the etiology and as to the value of different methods of treatment.

Celsus, one of the earliest writers of the Christian Era, who claimed to know much concerning cancer, contended that the cause was "black bile." His treatment, therefore, consisted mainly of elimination by purgation. As a means of diagnosis he sometimes used the cautery. If extension of pathology ensued following cauterization, then the ulceration should be diagnosed as cancerous; if, however, beneficial results were obtained, then the lesion was a simple ulcer. Several years later Galen, though concurring as to the "black bile" theory, did not object to operation. He employed the knife, and contrary to the teachings of Celsus, made use of the cautery, not as a diagnostic aid, but as a method of treatment—his idea being to eradicate the diseased tissue.

It is not my intention to give a history of cancer, but I hope you will bear with me while I give you one of the old formulæ:

Cinnabar, 2 parts;

Ashes of old burnt shoes, 3 parts;

Dragon's blood and white arsenic, each, 12 parts.

This was powdered on or applied in paste mixed with oil. You see it is not so different from our present day nostrums.

While what Hippocrates, and Celsus, and Galen thought and did, is of historical interest, the question of vital importance to us is, what do we of today know about malignancies, and what can we do to cure the sufferers or to alleviate their pains? Peyril-

he in 1773, declared that to cure cancer, even to define it, was extremely difficult. For this bit of wisdom he was awarded the Dijon prize.

Whenever I try to define malignancy, I always think of a definition one of my professors gave for a tumor. Dr. Thrash of Atlanta says: "A tumor is an aberrant, neoplastic cell proliferation, over which the normal physiologic inhibitory function has been lost or impaired." If we make a slight change and addition to this so that it reads: "A malignant tumor is an aberrant, neoplastic cell proliferation, over which normal physiologic inhibitory function has been lost or impaired, and which, aside from its mechanical interference tends to produce death," we distinguish between benign and malignant growths, and have a fairly accurate definition. Because of our knowledge of histology and pathology we have a great advantage over those investigators who lived prior to the development of this science. We have unquestionably learned something as to the nature and manner of invasion of malignancies, but as to the cause we are still ignorant. For several years some of the best thinkers considered them to be due to infection, and much effort was put forth to isolate a specific organism. In 1896, Dr. Hugo Ribbert, a German pathologist, propounded a theory, and supported it with such persuasiveness, that it overshadowed all the work that had gone before. Almost every man of note accepted his theory—the theory being, That all "cancers are due to the multiplication of one or more epithelial cells displaced from their fellows by trauma or by excessive connective tissue proliferation."

Of recent years a great number of experiments have been undertaken to learn more of the nature of cancer, and a vast amount of research work has been done to determine the cause, and to find a more efficient method of treatment.

There is strong evidence to support the theory of infection. I may say here, that Dr. Edwin F. Smith, plant pathologist of the U. S. department of agriculture, is able to produce at will a tumor, which, in practically all respects is the same as malignant

*Read before the Augusta (1924 meeting of the Medical Association of Georgia.

growth in man, by injecting a certain species of plant with *Bacterium Tumefaciens*.

But whatever may finally be determined as the prime cause, nearly everyone, who has given much thought to the subject, agrees that irritation plays an important role. Therefore the prophylactic treatment if I may be permitted to speak of the prophylactic treatment of cancer, consists in giving the proper consideration to and care of any abrasion or lesion which persistently refuses to heal. This is especially true of the lesions of the mucous membranes or at the junction of mucous membrane and skin. What appears to be a simple ulceration of the lip, frequently turns out to be cancer. The same may be said of ulcerations of the cervix uteri. Any lesion of the mouth, lip, or cervix uteri, which cannot be diagnosed as either tuberculous or syphilitic, and which shows no evidence of healing after 2 or 3 weeks treatment, should be looked on with more than suspicion, and should be treated as cancerous.

I am not contending that there are not other lesions which may persist for a long period, but for all practical purposes I believe this statement will hold. The treatment of abrasions in the mouth should consist of the removal of any source of irritation such as the rough edges of teeth or their fillings, cleanliness, and the correction of the reaction of the secretions by proper medication. Smokers should be advised of the possible harm which might result from irritation of abrasions of the lip. Ulcerations of the cervix should receive antiseptic care and the correction of irritating secretions. Lacerations should be repaired. Malignancy, in common with all other maladies, is best treated by prevention.

As to the foregoing, probably every one of you is agreed. But as to the best method of treating malignancies there seems to be quite a divergence of opinion. In fact I believe there are some few who hold with a very early writer on the subject, Duparque, whose dictum was, "Cancer is incurable, because it cannot be cured; the reason we can not cure cancer is because it is incurable; therefore if one by chance should hap-

pen to cure it, it must be that there was no cancer." No longer than a few months ago, one of the most eminent surgeons in the world was quoted as saying that there was no cure for cancer. He is undoubtedly correct. As for that matter, I cannot think of a single systematic disease for which there is an infallible cure. Perhaps as nearly a specific as we have is quinine for malaria, and yet there are victims of this malady, despite the most vigorous treatment. And by the way, this drug was known to be efficacious before the cause of the disease was discovered.

Until just a few years ago surgery was considered by most authorities as the *sine qua non* in all cases of malignancies. It is true that up to about 1880 caustic applications were quite in vogue, and even up to the present they are sometimes used for small surface epitheliomas. Their use has enabled quacks, so called cancer doctors, to ply their trade, usually implying that they had some special preparation unknown to the medical profession generally. In inoperable cases the cautery was and still is resorted to, to control hemorrhage and to make the patient more comfortable. But in the large majority of cases, where an effort was made to cure the patient or to prolong life, the knife was considered the agent of choice. Perhaps I should say is considered the agent of choice, for there are a great many men of high standing in the profession who think that surgical procedure is about all that is worth while. Even these, however, acknowledge that this method meets with small success. In fact, so noticeable has been the failure of surgery, that many patients refuse to submit themselves to the discomforts and hazards of an operation which offers so little hope, until their condition becomes unbearable.

This procrastination of course makes surgery still more unfavorable. Then, too, the performing of operations by men who understand so little the difficulties of complete eradication of malignancies has had a tendency to discredit surgery. On the whole I think there can be no question as to the benefits of surgery. It has undoubtedly pro-

longed many lives, and has resulted in a complete cure of a small percent of cases. When, however, the most liberal interpretations have been granted, there is still much to be desired. Surgery certainly has not met with such success as to preclude the consideration of other methods which are at all promising.

Among the seemingly worthwhile treatments which have been advocated in the last few years are X-Ray and Radium. So many fakes have been presented to the profession for consideration, and so many agents have been tried and found wanting, that whenever anything new is offered, we find ourselves asking, "wherein lies the virtue?" So that we naturally ask ourselves what are the characteristics of radium that would make us suppose it would be valuable in the treatment of cancer.

It is not my intention to go into detail as to all the properties of radium. I am neither a physicist nor a chemist. I think, however, these points are in order. Radium is a highly radio-active element; that is, in its process of disintegration it emits electrons at a high rate of speed. These electrons have the property of changing the chemical composition of photographic plates; of causing the fluorescence of certain bodies; of producing heat, and of ionizing substances through which they pass.

It is probably this property of ionization to which the therapeutic value of X-ray or Radium is due. It may be stated here that there is no difference in the emissions from an X-Ray tube and from Radium. Until very recent developments in X-ray machines and tubes, much more penetrating electrons were obtainable from radium. Electrons from the very high powered machines, however, approximate the penetrability of radium rays. Radium will always have the advantage of being readily placed in approximation with diseased tissue in certain anatomical locations. On the other hand so many more electrons are sent out from an X-ray tube than from a very large quantity of radium. This makes more homogeneous radiation possible with X-ray.

Our chief concern regarding radiation is

the effect it has on tissue. That it does produce change, and a very decided change, one may readily observe for himself. Just how and why these changes occur we can not fully explain. In the parlance of the day we do not understand all we know about it. Let us for a moment consider the composition of substance. Chemists tell us that all substance of whatever nature is composed of atoms, which in turn are a collection of positive and negative electrons. Any substance then, in its last analysis is nothing more nor less than a collection of electrons. And it is only the number and arrangement of these electrons which makes one substance differ from another. In radiating tissue we bombard it with a large number of negatively charged electrons.* It is natural to suppose that this would result in a re-arrangement of those electrons already present. Some tissues are much more readily influenced by radiation than others. For instance, enlarged lymphatics readily disappear under a very small radiation dose. This radiosensitiveness accounts in a large measure for the possibility of curing malignancy by radiation. It may be stated that the more highly differentiated a cell the more radio-resistive. The converse is also true. That is, the less differentiated, or the more nearly embryonic, the more radio-sensitive. Malignant growths then, being more or less embryonic in nature, are more radio-sensitive than normal structure.

Let us get down to specific cases, and determine how malignancies in certain locations are to be treated. Let us take the breast; for instance—which is advisable, surgery or radio-therapy? If the growth be small and freely movable and with no involvement of the axillary glands, or no evidence of other metastases, then I believe, if there is no contra-indications, surgery is the method of choice. Post-operative irradiation however, would not be amiss. If, however, the growth is not freely movable, or if there is slightest evidence of metastasis surgery should not be resorted to before preoperative

*What really occurs is the generation of secondary radiation in the tissues by gamma rays. This secondary radiation is largely negative electrons.

irradiation and post-operative irradiation should be insisted upon. If only one method is to be employed, then I believe radiation is the method of choice. In cancer of the lip, radiation is probably just as efficacious as surgery, and if there be involvement of the cervical glands, even though the patient be in the hands of the most skilled operator, radiation should take precedence over surgery.

Any involvement of the uterine cervix which can be positively diagnosed as malignant should never be operated on without pre-operative radiation, if at all. I am aware that there are a number of surgeons who do not agree with this. James W. Ross, Fellow in Surgery Mayo Foundation, claims best results are obtained by surgery "as proved by statistics." Of the 475 cases studied, 12.6 per cent were living after three years. Some of these cases had combined surgery and radiation. In the same article he quotes J. G. Clark of Philadelphia on 214 cases of **inoperable** malignancy of the cervix. Of these 11.6 per cent were living after 3 years, and 41 others still living more than a year. If only two of the 41 live two years longer, then Clark will have the same percentage of cures for inoperable cases as surgery claims for operable ones. I leave it to you, gentlemen, as to which method obtains best results in these cases.

In cancer of the prostate Dr. Herman C. Bumpus of Mayo Clinic concedes that **radium is just as efficacious as surgery**. And Dr. Clayton F. Andrews of the same clinic says of retroperitoneal Sarcoma, "A combination of Radium and X-ray seems to be the most satisfactory treatment thus far instituted."

McCarty, in speaking of factors tending to produce longevity of life in sufferers from malignancies, says that lymphocytic infiltration, cellular differentiation, fibrosis, and hyalinization play an important role.

That fibrosis can be produced by irradiation is beyond any question of doubt, and it is very probable that lymphocytic infiltration and cellular differentiation may be established. This we do know, that what

was the seat of malignant tissue often becomes normal following irradiation.

This paper has already consumed too much time for me to go into the method and dosage of X-ray or Radium. I will have this to say, however—In using radium, shoot at the periphery. We do not have to worry about the center of the growth. The cells there have already lived their lives and cannot be productive of more harm. As to the dose authorities differ so that one has to draw his own conclusion. For instance, I know one man who is a pioneer in radium therapy. For malignant cervix his average dose is one-thousand Mg.h. Say, 50 Mg for 20 hours. Others advocate as high as 6,000 Mg.h. One is making an effort to convert the cancerous cells into normal tissue; while the other is endeavoring to completely destroy the diseased part. X-ray dosage is still more complicated, and must be determined for different installations.

The possession of any quantity of radium or of the most powerful X-ray apparatus does not necessarily signify that the owner is well versed in the treatment of malignancies. Not only that. These very powerful agents may be productive of a great deal of harm, and should be handled by only those men who realize their responsibility to the patient and the profession. What I mean to convey is, that a mere random shot at cancer with radium or X-ray or any other agent can not but result in harm. Remember, first, last, and all the time, that it is not so much the destruction of the disease as the cure of the patient, we are after. And in those cases where surgery is admittedly out of the question, and where all other methods have failed, irradiation will frequently be found to be a source of great comfort to sufferers.

There should be no fight between the Radiologist and the Surgeon. Rather, there should be the closest co-operation between them, the general practitioner and the pathologist. Some years ago, in a paper read before the Georgia Medical Association, I made the statement that Radiation would never take the place of Surgery, but should

be considered as an adjunct. I am now of the opinion that, in so far as treatment of malignancies is concerned, surgery may be just as properly spoken of as an adjunct to radiation therapy. If I appear to be over-enthusiastic, I may say that I have been driven to this with a mind somewhat prejudiced in favor of surgery.

I have not spoken of Coley's fluid, electro-coagulation or other treatments, because with these methods I am not familiar.

The historical part of this paper was largely obtained from a paper by Dr. Roswell Park of the University of Buffalo. For the conclusion that I have drawn I am indebted to so many men with whom I have been associated, and to others whose articles that I have read that I hardly know where to begin to thank them. I wish to acknowledge my indebtedness especially to Dr. Benson of the Hahnemann Hospital, Philadelphia, and to Dr. Quick and his associates at the Memorial Hospital, New York, who so kindly allowed me to see their work and results at their clinics, and who so willingly gave any information that was desired. I am also indebted to Dr. Withers of Denver for his valuable instruction.

In conclusion.—This paper has not been presented as from an authority, nor yet, as having propounded a single new theory, but as from one who is deeply interested in the subject, and who begs your kindest consideration.

DISCUSSIONS ON PAPERS OF DR. PRUITT AND DR. KING.

DR. MARION T. BENSON, Atlanta: In the treatment of malignancy we have four agents: the scalpel, the cautery, radium and the X-ray. In malignancy all four methods should be employed. I think all cancers whether of the breast, the cervix, uterus, or the lip, should be treated with either radium or X-ray irradiation. If we use the scalpel or the cautery these patients should not be turned loose until they have been followed up with irradiation. Of the cases I have operated on in the last five or six years the majority of those in which I have used either radium or X-ray irradiation are alive today. In those cases that I did not use these methods the patients are dead, and for that reason I believe all cases of malignancy should have the benefit of these methods and that these patients should not be turned loose without irradiation with radium or the X-ray.

DR. CLEVELAND THOMPSON, Millen: I wish to call attention to one thing, and that is the habit of permitting X-ray technicians to tinker with malignancy.

I say X-ray "technicians" advisedly, and yet there are a lot of doctors who are using the X-ray apparatus who are merely technicians. They have no right whatever to fool with these malignancies without consultation with and the advice of the active general surgeon who knows his business.

I also wish to call your attention to another cause for the use of radium. A female patient, aged thirty-eight, was having hemorrhages every month for ten or twelve days, profuse, violent hemorrhages with her menstrual periods. This woman had a very high blood pressure and bad mitral regurgitation and she decided she had cancer. Against the advice and knowledge of the family physician she went to a radium technician and he stopped the hemorrhages with radium and just about ended her existence.

DR. BYRON DANIEL, Cordele: I have enjoyed these papers on malignancy but have not heard any of you mention using thermo-penetration instead of the cautery. I have never used thermo-penetration for malignancy only a few times but I see it is recommended and it seems to me it would be better. With the thermo-penetration in cancer of the breast, for instance, one can drive the heat entirely through, can cook the mass, and then all the malignant cells are destroyed. One can use surgery after the cells are cooked and there will not be much liability of the malignant cells escaping. It also renders the operation bloodless. In dealing with cancer of the breast it seems to me the best procedure is to first thoroughly irradiate the parts and the lymphatic system, then surgery, then postoperative X-ray therapy. In superficial malignant conditions skin cancers readily yield to X-ray or radium and I believe that is just as good as surgery. Carcinoma of the lip which involves the mucous membrane and skin is the most deadly of cancers, especially of the lower lip. Especially in advanced cases, use thermal penetration and follow by radium or X-ray.

DR. J. L. CAMPBELL, Atlanta: I am particularly interested in Dr. Pruitt's paper because he and I discuss this subject frequently and his views and mine coincide very largely.

I was impressed with one point brought out by him, that is the discharge from the nipple. This is found more frequently in benign than malignant disease of the breast. It occurred in about 3 per cent. of a very large series of benign and in only about 2 per cent. of a similar series of malignant cases. It does, as you see, occur in malignant disease and is, therefore, of little value to us in making a diagnosis; really in my experience which has been quite extensive, I have seen it in only one or two malignant cases. Again it is very difficult to make a differential diagnosis between mastitis occurring during the menopause and genuine malignancy. This offers more difficulty and gives us more concern than any other condition. I never see a woman between thirty-five and fifty with mastitis that I am not afraid to advise her to wait, and yet I hesitate to advise her to have the breast removed for fear it may be only a benign condition. I was recently consulted by a nurse for a condition in the breast which I thought to be benign and advised that there was no need for operation, but she insisted and a month or two later we removed the breast. After careful search, we found a small malignant focus in the center of the mass, which proved that she was right in insisting on an early operation.

If you wait for the sure signs, dimpling of the skin, adhesions and extensive infiltration, you will send your patient to the grave. Adhesions to the skin or the "dimple" means a death certificate, for whenever a breast cancer has progressed sufficiently to give these symp-

toms it has gone beyond a cure. If you wish to prevent this and at the same time avoid an unnecessary operation, have a pathologist present, remove the tumor or a section of the mass and let him make a frozen-section examination, if there is any suspicion of malignancy, do a radical operation, if not simply excise the mass or remove the whole breast which can be done with a local anesthetic. Complete excision of the breast, muscles and axillary contents with post-operative X-ray therapy seems to offer the best chance of a complete cure. Preoperative irradiation may be advisable if the patient can be controlled and if they have the financial means, but so many of our cases cannot come in for preoperative treatment and wait for the necessary eight or ten days to elapse before the main treatment begins.

DR. T. C. DAVISON, Atlanta: The discussion of malignancy is a broad subject and as to the treatment I think it resolves itself into excision when in doubt. If we secured our cases early that would be sufficient but, as we all know, probably 50 per cent. do not reach us early enough and we have to resort to irradiation and other methods of treatment.

I wish to say, briefly, in regard to cancer of the breast that I was glad to hear Dr. Campbell talk about the skin becoming adherent to the growth. We know that if we wait for this, the chances are we have waited too long, that we have metastases to the axillary glands, probably also to the liver and to the vertebra, and although we remove the breast and save the patient from dying from external cancer she will die from the internal malignancy.

I do not think it was mentioned that to stop these ravages of cancer we should operate the pre-cancerous conditions. There are men who deny that there are such conditions, but they do exist and if we are to lower the mortality in this disease we must operate on these conditions. These growths should be removed while they are still simple of benign. If we wait for a positive diagnosis of malignancy the chances are we will not relieve the patient in many cases even with the combined use of the scalpel, the cautery and irradiation.

Dr. Pruitt spoke of using the cautery. Several years ago on one of my visits to the Mayo Clinic Dr. Judd was removing all tumors of the breast with the cautery. I asked if he expected to get union by first intention. He said he did, but I had my serious doubts. On my next visit I saw he was taking these growths out with the scalpel. I asked why he no longer used the cautery, and he said that they had omitted that because the wounds did not heal very kindly. We cannot expect a wound made with a hot iron to heal by first intention, but if these cases are operated early enough the scalpel is sufficient.

DR. J. S. DERR, Atlanta: A disease that is supposed to claim one man in every twelve and one woman in eight in Georgia is one of the most important conditions we have to meet in medicine.

In regard to treating cancer of the breast, the statement was made several years ago that where the axillary glands have not been involved, thorough radiation would improve the post-operative results to almost 100 per cent. Where the axillary glands had been involved post-operative treatment should obtain good results in 75 per cent. The value of pre-operative radiation lies in the fact that the lymphatics are closed. The knife opens the lymphatics and carries the cells to other parts of the body. Dr. Pruitt's objection that pre-operative irradiation produces a reaction painful to the patient I do not think is valid, for in this treatment the bronzing of the skin should not be sufficient to produce discomfort, but it does produce a fibrosis of the parts, which is the best method of preventing metastasis.

The treatment of superficial cancer can be well carried out by means of irradiation. The results are almost 100 per cent. I think irradiation is the greatest single method we have today, but a combination of all the methods should be used in the treatment of carcinoma, when indicated in any particular case.

DR. C. K. WALL, Thomasville: Not all of us are situated as fortunately as some others. We have to operate under different conditions. We cannot always get the laboratory diagnosis or the pathologic diagnosis sometimes without waiting several days. There is no question as to whether or not to remove a breast that is clinically malignant, and it seems to me it is better to remove the whole breast unnecessarily than to leave it to chance and the second operation. The second operation on the breast has been the death knell of many patients, and it seems to me the best way to treat these cases is to remove the breast, even at a sacrifice of a certain percentage of normal breasts.

DR. MARION C. PRUITT, Atlanta (closing on his paper): There are just a few things that I will try to bring out more clearly than they were brought out in the discussion.

First, I do not consider it so essential to use the actual cautery provided one has used pre-operative X-ray treatment. If one has not used pre-operative X-ray treatment in advanced cases where one knows that in all probability he is not beyond the bounds of the cancer metastases, the cautery will give better results than the knife.

What Dr. Davison said about healing by first intention is true, but you will notice that I said the skin incision was made with the knife and the rest with the cautery. If one makes the skin incision with the knife and the rest with the cautery there is no trouble about getting union when a stab wound is made for drainage. If this is not provided for there will not be healing by first intention.

As to Dr. Derr's remarks about reaction, we must consider what the patient calls discomfort. They do get this reaction and it is not pleasant at times. However, it is not serious enough so that we must disregard X-ray therapy. This is a thing that your patients will be worried about, and they must be assured that this is necessary and that it is the only way to get the best results and then they will not complain.

Dr. Wall's remarks bring out the important point of men not having the staff around so that they can get a definite diagnosis immediately, and the fact that if one waits for enough doctors to get a definite diagnosis in many instances one will not need any doctors for some one else will take care of the patient. We must depend upon clinical judgment in all tumors of the breast and should not consider any other method than complete removal.

Another thing: I believe, regardless of the size of the tumor, that it is essential to use the combined methods of treatment. Pre-operative irradiation, then removal and post-operative irradiation, then removal and post-operative irradiation will give us a larger percentage of cures.

DR. T. BYRON KING, Sandersville (closing): I wish to state that in so far as bad results are concerned from the X-ray, radium, or anything else so potent, we have them. And I agree that X-ray or radium should be in the hands of competent men, just as surgery should be done by men who know what they are doing. We naturally expect bad results in some cases if we do much work, but there is a much smaller percentage of deaths from irradiation than from surgery.

Let me repeat that the welfare of the patient, rather than elimination of the disease, is the thing of paramount importance. In those cases where the disease

cannot be entirely eradicated, we can often relieve the patient of much suffering and make life for them more tolerable.

CONCERNING SOME PHASES OF CARDIAC INSUFFICIENCY*

Thomas D. Coleman, A. M., M. D.,
Augusta, Ga.

Cardiac Insufficiency may be defined as an inability on the part of the Heart to perform its functions normally. It differs in degree; it may be partial or complete; the former may be corrected; the latter never. Deaths from Heart Failure are apparently increasing with such rapidity as to make the more accurate study of the nature and treatment of Heart Disease a pressing duty.

As a cause of death, Heart Disease outranks any other disease; Penumonia, Cancer and Tuberculosis, formerly in the fore, now following instead of leading in the percentage column. The crude death rate from pulmonary Tuberculosis has declined from 174.5 in 1900 to 142.5 in 1910 and 97.9 in 1920.

The crude death rate from cancer has increased from 64.0 in 1900 to 83.3 in 1910 and 99.6 in 1920.

Organic diseases of the heart have increased from 116.0 in 1900 to 162.2 in 1910 and 178.2 in 1920.

Pneumonia (all forms) decreased from 175.5 in 1900 to 159.5 in 1910 and 155.7 in 1920.

It is possible to explain the apparent increase—for I believe it to be in large part apparent—partly by more thorough diagnostic measures e. g. death from old age, natural causes, etc; by more accurate mortality records; and actually by diseases incident to the World War; and to the epidemic of Influenza in the East in 1917, which has come over the ocean and is still present with us. Other than world cataclasms, such as wars, revolutions, famines and pestilence, it is difficult to understand why Heart Disease should be on the increase; and indeed with these eliminated, I do not believe that it is. For certainly, excepting, a few

isolated areas, people are better informed, more able financially to look after their health; and physicians better educated to care for them than ever before in the history of the world. Moreover, never before in all time has philanthropy and charity, which spell intelligence and brotherly love ever been extended so prodigally in the care and cure of the sick. Under older conditions many now living would be dead or passing a wretched existence. The fact that we are finding new avenues of infection has no bearing on the incidence of the disease: the fact that we did not know before, that diseased tonsils, teeth and other foci of infection, produced through the medium of the circulation a diseased endocardium pericardium; Myocardium; nervous changes imperfectly understood formerly and not solved today; which in turn produced death: these factors nevertheless operated and the end result was the same. A resume of the causes which produce imperfections in the cardio vascular mechanism are therefore pertinent, and in this study I shall endeavor to keep out meaningless phrases and amphoteric terms. It is well to bear in mind that the heart is the beginning and the end of life in all mammals. Everything that enters into the composition of the body must pass through the portals of the heart; and, when it ceases to function the end is at hand. Life begins with the development of the heart, and ends when it ceases to beat. Unless affected by inherited or acquired disease it furnishes the tissues with their needed nourishment and takes away their waste products. It is entirely conceivable that the intact heart is impossible of failure. It may go to the point of exhaustion, just as sparrows may, by being made to fly against a window pane exhaust themselves, but never to the point of heart failure: they simply drop exhausted, with rapid heart action and respiration movements. The diseases that effect the activity of the heart may for the purposes of convenience be divided into those which are endocardial and those which are exocardial, and yet the final result is the same: most

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of them affect their result through the circulation. It is assumable that an intact heart cannot be made to fail by stimulation. It may enlarge, it may over-act as in athletes, but it still functions. It is only when the heart is impaired by disease that it falls down; and the causes of this incapacity to act concerns us.

For all clinical purposes, most cases of Cardiac Insufficiency whether relative or complete are exocardial. It doesn't matter whether this is due to infection, auto-infection, or to insufficiency of some organ or organs. It is immaterial whether it is infectious foci in the tonsils, the teeth, elsewhere or to putrefactive processes in the intestines; or whether it is due to changes in the kidneys; or in the vascular coats of the arteries from syphilis or other disease; or from clots in the heart or out of it. A few exceptions will be found; sudden death may be due to heart-block to hemorrhage into the floor of the fourth ventricle, where pressure destroys the heart center; the same result may be produced experimentally, by puncturing the node vital; by fright possibly, though I am persuaded not except in the case of diseased hearts and by acute dilation of the stomach from pressure and the absorption of toxins. Bearing in mind that Cardiac Insufficiency is produced for the most part by bacteria and their toxins circulating in the blood; and rarely by congenital defects; it is desirable to study how these act to interfere with the sufficiency of the heart; its capacity to carry its load normally, and, to meet emergencies. They all act through existing inflammation or degeneration of the Cardio vascular mechanism; it may be a pericarditis producing adhesions which interfere with cardiac activity, it may be an endocarditis producing destruction of the valves, or to the deposit calcareous masses on them and preventing their perfect apposition when they should be closed, resulting in hypertrophy and dilatation; it may be myocarditis affecting the integrity of the heart muscle-producing degenerative changes, making it insufficient to

meet its normal load and to fail to respond to an abnormal one.

One must not forget that the heart is a physical pump, but it is dominantly under the control of the will, just as a mechanical pump works only under the direction of some brain. This influence has impressed itself on me, in so many cases of death from heart failure that I have studied. The nervous system—the will can in most instances force a heart to measure up to its load, but after the strain is over—a few hours, perhaps days, acute failure supervenes. A few engineers have been known to have died at the throttle; or golfers to have collapsed on the links; but for the most part those and similar cardiac defectives, stand the immediate strain under the whip of the nervous system, go to their homes to rest and pass to the beyond often when sitting at their fire sides, or resting in their beds. To use a Hibernianism I have for a long time been impressed by the number of people who “wake up dead”. An explanation of this came to me when I had a nightmare not long ago; in this I was fighting furiously with a burglar. When I awakened my heart was pounding just as violently as if I had gone through the actual encounter. I believe that many diseased hearts, under such sub-conscious stimulation, give way. The agents and their toxins responsible for cardiac insufficiency may be said to be included under the class of all pyogenic organisms, and are well known; what is even more important is to bear in mind their avenue of entrance and activity in any case of Cardiac Insufficiency. Where this is relative many lives may be saved; where this is complete and overwhelming death cannot be averted.

It is beyond the purposes of this paper to enter into the symptoms of Cardiac Insufficiency; but the causes are pertinent. A pyogenic focus may exist anywhere in the body and the individual may be unconscious of it, e. g. in the tonsils and at the roots of teeth: for a time he adjusts himself to not feeling fit. In the end the heart strain forces him to consult a doctor. This em-

phasizes the desirability of frequent so-called "health examinations." They may cost a little more in dollars, but are well worth the price in suffering averted, and death deferred. Keeping in mind, therefore, the Anatomy and Physiology of the Cardio-vascular mechanism, it is profitable to consider some of the causes that interfere with its perfect function. These may for purposes of convenience or clearness be divided into circulatory and nervous which latter must in the end be dependent on the circulation; with the exception of defects of development I believe that practically all are the result of infection of some sort.

Rheumatic Fever and Syphilis may head the list, but then closely follow other infections from such diseases as Pneumonia, Influenza, Typhoid Fever, Malaria, Intestinal Putrefaction, Arterio-Sclerosis, Disease of the Coronary Arteries, Scarlet Fever and a host of others too numerous to mention.

Again one must consider interference with the depressor and augmentor control of the heart from disturbances in the central and sympathetic nervous systems.

Still further the effect of heart block, which we discuss with so much lucidity, but really about which we know so little. All of these problems enter vitally into the solution of this problem, and the saving of such lives as are savable.

In this endeavor as was aptly observed concerning a political status. Eternal vigilance is not only "the price of liberty" but of life itself.

DISCUSSION ON PAPER OF DR. COLEMAN

DR. R. T. DORSEY, Atlanta: The diagnosis of myocarditis seems to me to be always an insufficient diagnosis, because there are relatively very few primary cardiac conditions. The diagnosis of myocarditis is insufficient because we may make an historical or a symptomatic diagnosis; a pathologic diagnosis; an anatomical diagnosis; a clinical diagnosis or an etiologic diagnosis.

A clinical diagnosis of myocarditis carries us but part of the way. If we are to help these sufferers we must force ourselves to the end that we may determine and know from whence comes this myocarditis, and the essential thing therefore is an etiologic diagnosis. We may then classify hearts on an etiological concept to a very practical advantage, such for example:

1. Endocrine hearts: such as result from an intoxication of the thyroid gland, or as occurs in Addison's disease as the result of structural changes in the

adrenals. (Goitre myocarditis is an example of this class.)

2. Then we have the infectious causes operating to produce myocarditis and that great group we may designate as the **Infectious heart**. (The rheumatic heart belongs to this class.)

3. We have the **Sub-infectious myocarditis**, the cause being due to local toxins, such as arise from teeth, tonsils, sinuses, etc. This is not an infrequent condition in people advanced in years.

4. We have the Cachetic myocarditis, coming as a complication of cachetic states of various kinds. The renal or arterio-sclerotic heart exemplifies this class.

Finally, we have the Syphilitic heart. With the diagnosis of myocarditis alone, you are contributing very little to the sufferer; but for example, a diagnosis of syphilitic myocarditis gives you at once a weapon which, if properly used, will at once tend to improve the patient or stay its progress. If it is a sub-infectious type, the cleaning up of teeth, tonsils, or whatever the offending focal lesion is, will relieve the heart of much of its burden. This idea followed on down the line has been of much clinical value to me.

I arose only to stress that when we deal in heart conditions, we should be content with no other diagnosis except the etiologic diagnosis, because that at once gives us a definite and specific weapon with which to fight and hope.

DR. THOMAS D. COLEMAN, Augusta (closing): I have very little to add to what I placed in my paper. I wish to emphasize that in many cases I do not see any improvement for two or three, or sometimes for six months after removing the focus of infection. I am not a crank on that subject. Everybody knows that artificial teeth are no more than 60 per cent efficient, but when teeth are plainly diseased and are injuring the heart muscle or the nervous system which has control over the heart I think it is time to relieve that infection, whether it is in the tooth or anywhere else.

PRESENT UROLOGICAL METHODS AS PRACTICED IN EUROPE.

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The following remarks are based upon observations and postgraduate study of the various methods employed at the Urological Hospitals in Paris, Vienna, Berlin and Budapest. It was interesting to compare the routine procedures as used in the outpatient departments and Hospitals with that as practiced in the more modern Urological institutions in this country.

On the whole, the methods employed were very much alike in the cities which I visited, and this applies particularly in the use of the cystoscope. The instrument most often used is the one manufactured by Wolff or Leiter and is of the non-irrigating variety. In performing a cystoscopy, the bladder is first irrigated through a soft rubber catheter until the return flow is clear, and the cystoscope is introduced after the blad-

der is distended with fluid. The medium used quite extensively throughout Europe is a 1 to 5000 oxycyanide of mercury solution, the 1-1000 solution being used for the sterilization of instruments, etc. Unlike the American Urologist, the European does not employ the aseptic technique which we practice here and this applies not only to cystoscopies but to major Urological operations as well. However in spite of this, the percentage of infections is practically nil, probably due to their resistance and more rapid recuperative powers.

Paris has always been known as a great Urological center and it was rather interesting to visit the clinic of Professor Marion at the Lariboisiere Hospital, Professor Legieu's clinic at the Hospital Necker, and also Professor Pepin's clinic. The things which impressed me most were; the large amount of clinical material available with almost every variety of Urological condition to be treated; in surgical conditions, the Reverden needle was used constantly; in many of the operating rooms, there was no instrument nurse, the surgeon handling his own instruments and having only one assistant; self retaining retractors are used whenever possible; prostatectomies were all done suprapubically after the Freyer method the anesthesia employed varied quite a great deal since the prostatectomies were done under general narcosis, spinal anesthesia, sacral anesthesia and the local infiltration with 2 per cent novocain solution of the lower abdomen in addition to the infiltration of the prostatic capsule itself, with an especially devised long curved needle. Another interesting thing noted was the length of time that elapsed before the second stage operation was performed since in some cases which I saw, ten months had elapsed before the prostate was finally removed, the supra-pubic catheter having been used all this time. In other cases, the indwelling urethral catheter is used to get the patient into condition. In all cases prior to prostatectomy, particularly in elderly men, a bilateral vasectomy is performed as a routine. Nephrectomies as a rule were done under general anesthesia and

the apparatus for holding the patient in the lateral kidney position with the hips elevated was rather interesting. In their kidney functional tests Indigo-Carmine is extensively used, .08 gm. in 20 c. c. of distilled water given intramuscularly or .02 gm. in 5 c. c. water being given intravenously. The Ambard Constant was employed in determining the condition of the patient preparatory to operation, also the amount of chlorides per liter and the amount eliminated. Linen or cotton gloves are generally worn unless the case is septic, when rubber gloves are worn. Another interesting condition noticed was the fact that in spite of the large number of urological cases seen, strictures of the ureter were a rare occurrence. This also applies to the clinics in Vienna and Berlin and it is probably due to the fact that pyelography is not as far advanced in Europe as it is in America and in addition many of the Hospitals and out-patient departments are without X-ray machines. Much importance is attached to the study of post-operative specimens, the Guyon museum and the pathological museum of Pepin, being examples of the interest attached to the preservation and study of these specimens. In resection of Bladder tumors, operations upon the ureter, etc., much dependence is placed upon the use of the actual cautery. The large variety and assortment of catheters and bougies, the various forms of sounds, urethrotomes and other Urological instruments, stand out very prominently in any of the clinics which one might visit. On account of the large number of patients handled, the cases are distributed in the various wards according to the diagnosis; e. g. one ward contained patients suffering from disease of the epididymis, another contained patients suffering from disease of the kidneys, etc.

There is no doubt that Paris is a great Urological center, and with such masters as Legieu, Marion and many others, one's visit to the various Urological clinics would be very interesting as well as instructive.

In Vienna, the Urological methods are very much along the same lines as seen in Paris, with the exception that the depart-

ments are more scattered; in other words, nearly every Hospital in Vienna has its own Urological Department, whereas in Paris, it was limited to only a few. However the more important institutions were the Urological Department of the Jubilean Hospital under the direction of Professor Croise, which in my opinion is the most modern and up-to-date one; the Urological Department of the Sophien Hospital under the direction of Professor Blum, and the Polyclinic under the direction of Professor Rubritius and his associates Doctors Zinner and Schwartz. The method of doing cystoscopies is the same as practiced in Paris, that is, the non-irrigating cystoscope is employed. The medium used is a 1-5000 oxycyanide of mercury solution and the other procedures, e. g. fulguration, intra-vesical operations, etc., are carried out the same way as is employed in this country. It was interesting to note that pyelograms were seldom done and when employed, did not reach the standard as is seen in America. Potassium bromide and potassium iodide were the chemicals employed. Most of the surgical procedures were performed under general anesthesia, although I saw spinal, sacral and para-vertebral anesthesia employed. Prostatectomies were all done according to the Freyer method in one stage, although at times, a preliminary cystotomy or treatment over a certain period with an indwelling catheter was resorted to. Only a few perineal prostatectomies have been performed by the Vieneses Urologists, the technique having been demonstrated to them by Dr. Lowsley, of New York City. Indigo-carmin is employed in the functional diagnosis test, including the concentration test of Volhard, Cryoscopy, blood urea and chlorides. In Roentgenograms of the bladder for diverticulae, tumors, etc., the bladder is distended with a 10 per cent potassium iodide solution, and then X-rayed for the presence of filling defects, etc. Catheterizing the diverticulae as is done in this country is not often practiced in Europe. The Glinger Urethroscope which was recently introduced to the medical profession by Dr. Glinger of the Genito-urinary department of the Sophien Hospital, has

been acclaimed by American Urologists who have seen and used this instrument, as one of the best Urethroscopes on the market. It can be used for both diagnostic and operative work either with the irrigating attachment or without. The dry method is used for the examination of the verumontanum and general condition of the urethra, and the wet or irrigating attachment for the diagnosis and treatment of intra-urethral conditions e. g. polyps, diverticulae, congenital bands, infected crypts, etc. Dr. Glinger has entire charge of the Urethroscopic Department, and many interesting cases are seen daily. Much interest is attached to pathological study of post-operative and postmortem specimens and a visit to the museum of Professor Zuckerkandl at the Jewish Hospital or to the Pathological anatomical institute of the University would be very instructive.

In Berlin, I visited the clinics of Professor Eugene Joseph and Otto Ringleb. Joseph employs in his clinic for pyelograms, a 25 per cent iodide-lithium preparation sold under the trade name of "umbrenal" and which gives very distinct pictures. Joseph more than any other European urologists, is a great believer in Pyelography, and in my visit to his clinic, he showed me some very interesting plates of various kidney diseases including a number of congenital conditions. In the treatment of bladder tumors he employs pure trichlor-acetic acid, this being applied directly to the tumor through a ureteral catheter. At times, he combines this method with fulguration. He also showed me his new cystoscope which can be boiled. The antiseptic employed for bladder lavage, urethritis, etc., is a 1-5000 Rivanol solution. His prostatectomies are done as a rule in one stage but at times a preliminary small suprapubic fistula is made for cases that necessitate treatment for an existing cystitis. In carcinoma of the bladder, a preparation known as Carcinolysin and introduced by Professor Matsushita has given very favorable results. Indigo-carmin is used in the functional tests, and dependence placed upon blood urea, Volhard's concentration test, and cryoscopy preparatory to operation.

At the Charity Hospital under the direction of Professor Ringleb, the things of importance that attracted my attention, were the many types of the Ringleb cystoscope, one of which is known as the color-filtar cystoscope. This instrument is used in nearly every case of cystoscopy that he performs, and he claims that with the color attachment, the diagnosis of T. B. bladder, small papilloma, ulcers, etc., is very much simplified; in other words, in looking through the colored spectrum which is attached to the ocular piece, a contrast in colors is obtained, as for example, in a T. B. bladder, the tubercles appear one color, while the mucous membrane appears another color. The lens is also improved upon and gives a much larger visual field. His prostatectomies are all done supra-pubically in one stage and pyelograms are only occasionally resorted to.

The methods of Professor Kummell at the Eppendorf Hospital in Hamburg were similar to those employed in Berlin. He has a very large active service, a modern operating room, complete X-ray equipment, and many interesting cases are shown daily.

Concerning the Urological clinics in Budapest, I wish to state that in spite of the fact that Budapest has never been known to the American Physicians and Surgeons as a center for post-graduate work and study, I was surprised to find in this historical old city of Hungaria, some of the best clinics that I have ever attended. The hospitals are modern, the equipment of the very best, and their surgeons not only great operators but great teachers as well. As a result, many Americans have recently come to Budapest to take post-graduate courses not only in Urology but in other lines as well. The Rokus Hospital, with Professor Illyes as its attending Urologist, has several wards devoted to Urology. The service is very active, surgical operations being performed daily and all under local anesthesia. No general anesthetist is employed. For several months, Professor Illyes and his assistants have been doing nephrectomies under para-vertebral anesthesia, by injecting 5 c. c. of a 2 per cent novocaine solution in-

to the spinal nerves as they emerge from the 8th, 9th, 10th, 11th, 12th thoracic and 1st lumbar vertebrae. The injection is made about two fingers breadth from the spinal column. He also infiltrates with a one or two per cent novocaine solution, the area bounding the line of incision. In every case that I have seen, the procedure was practically painless. Prostatectomies are done in one stage, the patients being treated previously with bladder lavage through a urethral catheter until their condition warrants the operation. The anesthesia used is sacral and the bladder is fully exposed. In the technique employed, he uses a long special scalpel with a short blade and makes an incision around first one side of the vesical orifice hugging close to the sphincter, and then the other side down to the prostatic capsule. He then incises the capsule on both sides, frees the gland with the prostatic enucleator and then completes the enucleation as in the Freyer method. The cavity is then packed tight with a long strip of narrow gauze, a rubber tube inserted into the bladder and then two rows of interrupted sutures introduced which completes the operation. His results have been excellent.

The functional tests depended upon are Cryoscopy, which was introduced in Budapest by Koranyi and Volhard's concentration test. Indigo-carmin is employed in determining the functional capacity of the kidneys. Pyelograms are rarely used and then in conditions that are doubtful.

I also visited the St. Janos Hospital where I attended the clinics of Professor Rhimer. In prostatectomies, he employs the two stage method as is done here, the second stage being done under sacral anesthesia. Sacral anesthesia is also employed as a routine in those patients that have very little bladder capacity as a result of a severe cystitis, tuberculosis, etc. He also employs quite often the intravenous preparation of Urotropin for cases of pyelitis, and the one per cent silver nitrate solution for pelvic lavage. Carcinoma is treated with deep X-ray therapy and radical methods when necessary.

In conclusion, I wish to state that I have tried in a brief sort of manner to explain the Urological methods as prescribed by our colleagues across the Atlantic, without going into details, and for the benefit of those who may some day make the voyage, I am sure that they will profit by the study and comparison of the methods employed.

INFANTILE DIARRHOEA*

Geo. S. Clark, M. D.

Hartwell, Ga.

In presenting this subject, I make no apology for choosing such an old one, because it is one of the most common of the diseases of childhood, and it taxes the skill of both the general practitioner and the specialist. Neither am I bringing a scientific research paper, but a few ideas and thoughts gained by personal experience.

Diarrhoea is the term applied to the frequent loose evacuations of the bowels and is readily recognized by the mother or attendant. These movements depend upon a number of causes: increased peristalsis, indigestion, irritation of the mucus membrane, fermentation, etc., causing increased intestinal secretions.

Being a very common complaint, it is also a very dangerous disease. In comparison with other diseases, we find from statistical reports that more children up to two years of age die of diarrhoeal disease than from the combined effects of measles, scarlet fever, pertussis, typhoid fever and diphtheria. For four years, from 1919 to 1922, inclusive, in Georgia alone the total number of deaths up to two years of age was 4425, for all ages it was 5757. From these reports, we can readily recognize that diarrhoeal diseases are most destructive to infant life and it takes an alarming toll. Fortunately through the medical profession and the Public Health Service, the propaganda put out to the laity through babies' clinics, and the Children's Bureaus, etc., the public is becoming better educated and more interested

as to the value and needs of the child and thousands are being saved every year.

Etiology

It is a fact known to every physician that diarrhoea directly follows attacks of indigestion. The digestive organs are greatly taxed to provide for the increasing need of a growing baby. Digestion is an intricate chemical process and unless all the chemical and physical conditions are fulfilled the digestive function, like the chemical experiment, is a failure. The ever changing intestinal mucus membrane preparing to receive a changing and increasing food supply presages danger to the child unless the food is intelligently prepared and properly administered. The mucus membrane thus enfeebled and injured loses its bactericidal power to a great extent and a fertile soil is developed for the growth of bacteria which produce irritants and toxins injurious to the child. By this absorption the vitality and resistance of the tissues are reduced and the enfeebled body is overtaken by disease. Ignorance of the simplest rules of sanitation and the negligence in infant care is often the cause of a healthy child at first falling into the condition of malnutrition, marasmus, etc., thus becoming enfeebled readily, succumbs to the first appearance of hot weather, the intestinal mucus membrane being the favorite point of attack. In general, as the vital forces are lowered the battle against the forces of destruction is lost. Therefore, bad food, bad air, bad hygiene and hot weather are direct predisposing causes of diarrhoea. In our locality where we have plenty of room and fresh pure air, in my opinion, the question of feeding makes up almost the sum total of the etiological factors in the production of diarrhoeal disease. Over crowding in the cities, bad hygienic surroundings, negligence, and ignorance are in some cases responsible for diarrhoea, but the majority of the cases we have to deal with in the country and smaller towns have their origin in feeding in some form. Breast feeding, of course, is the best and only food to be used when possible.

*Read before the Eighth District Medical Society, August 8, 1923.

This is nature's source of supply and the milk does not have to be handled, allowing it to be contaminated and most children thus fed have a much better opportunity to survive than children not so fortunately situated. Of the breast-fed infants only a small per cent have diarrhoeal disease, and a still smaller per cent die, because they are healthier and stronger and better able to resist the onslaught of disease. Yet, I am sorry to say that many mothers are unwilling to nurse their young while many are willing and can not.

This brings up the subject of artificial feeding. The market is flooded with baby foods and each has its peculiar claims and advantages, but in my own family and private practice I find that each child has to be treated and fed individually. There is no one food that you can adopt as the only one to use for some children will thrive on one while another can not take it at all. To my mind the best and most generally well borne artificial food is the modified cow's milk. Cow's milk should be from a healthy cow and well handled, low in bacteria and pasteurized.

Symptoms

There are several types of diarrhoea, mostly in degree of severity, which classification you can find in text books, and which only interest the practitioner from the standpoint of treatment. We have all the types from the very mild to the severer forms of cholera infantum.

The general symptoms are colicky pains, thirst, anorexia, fever, prostration, tympanites, great restlessness and frequently severe nervous disturbances manifested by convulsions. When taken suddenly vomiting is usually present. The stools are always increased in number and are from seven to twenty or more per day. They are at first yellow and develop a grass green color, showing all the intermediate changes of yellowish green between the two extremes. In the mild forms blood is rare and tympanites is slight, but in the severe forms both these conditions are often very severe and

give great distress to the little patient and great anxiety to the physician. At first these secretions in the severer types are very foul, but after a few days they become less offensive and have little or no odor.

The temperature curve has a variety of changes, according as the case is mild or severe. In many cases it ranges around 99 to 101, while in other of the severer forms it may reach 106 or even 108. In one of my recent cases the temperature went as high as 108 and for 36 hours it ranged between 107 and 108. The only time I have ever seen such a high temperature for such a length of time.

Treatment

The treatment may be divided into hygienic, dietetic and medicinal, employing the means at hand under these divisions a great deal can be done for the child. In severe attacks during the hot summer the child, if possible, should be sent to a cooler climate, like the seashore or the mountains. Frequently just the change of climate with different surroundings do a great deal of good. The child should be out in the open and light clothing should be worn and frequent bathing is necessary to relieve restlessness and also to reduce the temperature.

As to dietetic treatment in acute cases all food should be stopped for at least 24 hours. If the case was begun with vomiting the stomach is already almost empty and food at this time would only prove harmful. Thirst may be quenched by frequently administering small quantities of water, tea, etc., and if vomited may prove beneficial, because of its cleansing effect of washing out the stomach. After sufficient recovery the food may be gradually increased as the child can bear it. Solid food should not be given until several days after the stools have become normal.

Medicinal Treatment

Many remedies have been exploited and advocated as specifics, but only a few remedies well chosen and intelligently administered are necessary or beneficial.

The first thing to be done is to give the

bowels thorough purgation, thus unloading the bowels of all effete and harmful matter. This should be done by the administration of castor oil, calomel, the salines and irrigation. If the fever is high I frequently use cold irrigations, which are well borne and very comforting to the patient.

All food is stopped and the stomach cleansed of all food particles by giving draughts of warm soda water. In older children lavage may be used. In all these cases there is nothing more beneficial than high irrigations.

Opium in its various forms, such as the deodorized tincture, paregoric and Dover's powders in proper doses should be given for the pain and restlessness, but these should be used with caution and judgment in order that harmful toxins and secretions may not be retained in the stomach and bowels which would hinder the recovery of the patient.

In cases of severe toxemia evidenced by profound prostration, stupor, etc., I give Vancotts Bacterin in small doses at first and larger doses after a few days. B. B. Culture is also a favorite remedy. Bismuth in its various forms, salol, chalk, calomel in minute doses and the sulpho-carbolates offer a wide range of drugs for selection and in proper doses in selected cases have their place in the medicinal treatment of these cases. Prophylaxis, hygiene, stimulation and supportive treatment give us great latitude for the exercise of judgment and skill in each individual case. In acidosis which is liable to develop in any of the continued and serious cases and because of the difficulty in recognizing it clinically the bicarbonate of soda should be administered as a routine to keep up the alkaline reaction of the urine and blood.

General Considerations

It is the duty of the physician to begin instructing the mother before the birth of the child as to what to do and how to do it so that she may be healthy herself and give birth to a healthy child with the best

possible surroundings, proper feeding, clothing and sanitary conditions.

If each physician would take a little time to instruct the mother by giving her a few simple rules in infant care many children would be saved each year and the child and adult life would be vastly benefited.

Through the Children's Bureau of the Department of Labor, literature can be obtained free of cost and if every mother were supplied, the value of such literature to succeeding generations can not be estimated. There is a great opportunity for the doctor to serve his day and generation with something worth while for preventive medicine is much more effective than therapeutic administration, and while it may not so much increase our purse we can erect a monument to ourselves more enduring than silver and gold.

By the employment of such methods diarrhoeal diseases would not only be in a great measure prevented, but many other afflictions of early childhood would be almost obliterated, and the race generally improved and I believe every doctor in this assembly is willing to donate this service.

As general preventive measures I would recommend:

1. Always, if possible, prescribe maternal nursing.
2. Training of mothers regarding infant hygiene and careful attention to the milk supply in the home.
3. Careful instructions to the mothers in artificial feeding where there is to be artificially-fed infants.
4. Careful sanitation in everything pertaining to the young infant.

CASE REPORTS*

J. C. Rollins, M. D.

Dalton, Ga.

Case No. 1

A Large Uterine Calculus

On June 22, 1922, I was called to see this patient, Mrs. A. L. S., a woman, aged 60,

*Read before the Seventh District Medical Society, August 8, 1923.

married, mother of two sons, both living and in good health, youngest, aged 35.

Past History unimportant except that during the last few years of her menstrual history she suffered rather severely with dysmenorrhoea which was attributed by her physician to a "Tumor" which he diagnosed twenty-five years ago. Prior to the menopause she had at one time missed seven months, and pregnancy was diagnosed at that time. (This was fifteen years ago.) When seen she presented the following symptoms:

Urinalysis:

Color, jaundiced to almost Icteric.

Edema, of the feet, face, hands and limbs.

Odor, that of extreme uraemia.

Dyspnoea, very marked, especially upon the slightest exertion.

Chief Symptoms, very stubborn and persistent cystitis with protracted anuria. Had not voided more than one or two ounces in twenty-four hours for days at a time.

Uraemia was of course present to a marked degree. She had chills, fever and sweats for days at a time, for the past year or two, intermittently. Two or three such chills within a day, sometimes.

Pre-operative Diagnosis: Upon local examination a large intra-uterine tumor was found. Mass was very dense and hard, and located far back upon the sacrum together with the retro-displaced uterus, which was adherent and fixed. This caused compression upon both ureters.

Color, Pale cloudy.

S. G., 1004.

Albumen, Positive.

Sugar, Negative.

Total Solids, per liter, 24 hours, 13.2 g. m.

Indican, Positive.

Total Chlorides, Reduced.

Microscopical. A few hyaline casts, and some free blood.

On account of the very depleted, and toxic condition of the patient, it would appear to be a rather bad surgical risk, but after keeping her in the hospital for about four days, I decided upon an operation.

On June 26th, a sub-total hysterectomy,

was done and upon opening the uterus, a hard, calcified fibroid $4\frac{1}{2} \times 3\frac{1}{2} \times 3\frac{1}{2}$ was found.

The post-operative course was entirely uneventful for within three or four days the kidneys were excreting 30 to 40 ounces urine in a day, and all signs of uraemia soon disappeared, and the patient was dismissed and sent home on June 8th, 1922, having spent only twelve days in the hospital.

My main excuse in reporting this case is first, that uterine stone seems to be rather rare. It certainly is in my own personal experience. I have seen only two other cases, both very small ones, heretofore.

Second, the very satisfactory results obtained from hyperdermoclysis, intra-venous transfusion of normal saline, proctoclysis per Murphy-drip, and a glass of water per orum every hour.

Third, the very rapid clearing up of the symptoms.

Case No. 2

A Case of Acute Appendicitis and Acute Diverticulitis of the Ileum, Concurrently.

History: Mr. F. J. F., age 35, married. R. R. employee.

Had always been healthy except had typhoid when about twelve or thirteen. For the past three or four years had suffered with intermittent attacks of pains of a cramp-like character and of a colicky nature, in the right lower abdomen. These attacks were always accompanied with nausea and emesis, and followed within a few hours with the proverbial soreness at McBurney's point.

The number of attacks during this period was five or six, each growing more and more severe, and its duration longer. Patient complained of a constant soreness in the lower right side, with flatulence, constipation, indigestion, etc.

Operation on June 24th, 1922.

Upon opening the peritoneum a mass was seen to protrude from the opening. This was at first thought to be the appendix but upon closer examination was found to be a diverticulum of the ileum, and coming off

from the ileum about eight inches from the ileocecal juncture.

This diverticulum was four and a quarter inches long by one inch in diameter, and contained about an ounce of a muco-purulent material. As this diverticulum was so acutely inflamed as to be almost gangrenous, it was, of course, thought that it was the appendix; but after its removal a search was made for the true appendix, and when found, it was quite adherent and acutely inflamed.

Diverticula of the intestinal tract, generally, are not so rare, especially since we have been so free with radiology of recent years, but in my own experience of twenty years, and which covers hundreds of cases of abdominal surgery, it is the only instance I have ever found the concurrent condition mentioned.

Case No. 3

A Case of Appendiceal Intestinal Obstruction in a Child Twenty-six Months Old.

Robert T., age 26 months was brought to me by Dr. R. C. Kemp, Connesauga, Tenn., on December 25th, 1922, at 1:30 A. M.

Child had been suffering for four or five days with dysentery with severe colicky pains in the abdomen, and with several small stools of mucus and blood daily.

This condition failed to respond to the usual line of treatment, but intestinal obstruction was not diagnosed until the day before, when the abdomen became distended and all flatus ceased to be expelled, and all the symptoms became alarming.

Child was admitted to the hospital at 1:30 A. M. and its condition became so grave as to be almost hopeless. Deciding upon immediate operation the obstruction was soon found and relieved, but peritonitis was already general. The interesting thing about the case was that the obstruction was caused by a fold of ileum pushing itself through the meso-appendix, thus having the appendix on one side and its meso on the other, completely tying-off the gut.

The lesson to be learned from this case is that perhaps many cases of intestinal ob-

struction in young children are diagnosed and treated as "dysentery" and "diarrhoea," sometimes, as in this case, too late, as the child died about 24 hours later.

Every case of the kind which does not yield readily to the usual treatment within twenty-four hours, in a baby, or small child, should have the benefit of a thorough X-ray examination to determine if obstructive symptoms are present.

INDICAN, ITS CLINICAL SIGNIFICANCE*

W. W. Daniel, A. B., M. D.

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According to Morgan (1), auto-intoxication or true intestinal toxemia, if there be such a disease, is very rare. However, there is a symptom complex of headache, sleepiness, weakness, early fatigue, nervousness, mental depression, indifference, insomnia, loss of appetite, etc., which confronts the practitioner as a part of his daily routine.

Alvarez (2) is of the opinion that these symptoms are not toxic but are produced by pressure as the result of unusual distension of the colon with irritation of the mucosa by the accumulated fecal material contained therein. Others, however, believe that these symptoms are due to bacterial putrefaction of protein material which has escaped digestion in the small intestine and which, when the diet is rich in proteins, passes into the colon without much change having taken place. Such a putrefactive process would give rise to such products as indol, skatol, phenol and cresol. These aromatic bodies are absorbed into the blood and are carried by the portal circulation to the liver where they are transformed into ethereal sulphates. The object of this change is to render these substances non-toxic. Then they pass into the general circulation and are eliminated in the urine. In the urine the most readily recognizable of these substances is indol which appears as potassium indoxyl sulphate or indican. (Bachmann and Bliss, 3).

*From the Department of Physiology, Emory University, School of Medicine.

Indican is the most important, clinically, of the ethereal sulphates. Folin and Denis (4) have shown conclusively that the indican content of the urine does not originate to any extent from the metabolism of protein material in the body but is derived, in a great degree, from protein putrefaction in the colon and that the excretion of indican may alone be looked upon as a rough index of the amount of putrefaction taking place in the colon.

From the foregoing, it would seem that a patient presenting the symptoms as outlined, with an indicanuria, is undoubtedly a victim of intestinal putrefaction due to an excessive protein diet and that the symptoms may be due in part to the presence of indol in the circulating blood. Close questioning of these patients will usually reveal the fact that they are great meat-eaters, take very little exercise and have occupations, such as office or store positions, which are very confining.

To substantiate his belief, the writer will present three cases that have come under his own observation and also reproduce a case given by Best (5).

Best's case was a married woman, 35 years of age, who suffered from periodic headaches which seemed to have a toxic origin. Because of dermatographia, spastic colon and indicanuria, it was believed that the origin of the trouble was in the intestinal tract. Constipation was a habit increased by the religious use of cathartics. He treated his case by eliminating meat from the diet for four days. During this time he allowed a minimum amount of protein food in the form of egg white, cheese, etc. Fats, green vegetables, fruits and starches were allowed. In addition he gave a teaspoonful of lactose with each meal. After the four days had passed, he allowed a regular diet without the lactose and with a lessened amount of meat than had been consumed by the patient previously. No cathartics were given and the bowel movements became regular and full. The symptoms, including the indicanuria, entirely disappeared and did not return.

Of the three cases which have been observed by the writer, one was a married woman of 23 years; one a married woman of 40, and the third was a man of 28, the husband of the woman first mentioned. All three gave histories of headache, mainly frontal in character, occurring at irregular intervals, more often in the mornings. In the case of the first patient mentioned these headaches frequently lasted for several days and were sometimes accompanied by nausea and vomiting.

The first case, a married woman, age 23, was a stenographer. She worked from 8 a. m. until 5 p. m., with one hour for lunch. The only exercise she ever took was an occasional game of tennis about once a week or once every two weeks. She complained of headaches at times, often accompanied by nausea and sometimes by vomiting. She was constipated habitually and took mildly acting cathartics regularly. She was always tired and sleepy at the office and at night was restless and didn't sleep well. She was very apprehensive about her condition fearing it was some chronic incurable disease. Her daily diet contained a large quantity of meat, some vegetables and some starchy foods. Her urine showed an acidity of 40° and indican.

The second case was the husband of the above. His complaint was similar but less marked. He complained further of being very irritable and nervous. He ate the same diet as his wife, was a teacher and took no systematic exercise. His urine showed indican and an acidity of 35°.

The third case was practically the same as the above two cases. This woman was 40 years old, married and the mother of two normal children. She complained of fatigue and nervousness; said her housework was drudgery and that she had no "pep" to carry on as she did formerly. Her urine was acid (40°) and showed indican. She ate considerable amount of vegetables, fruits, meats and bread but did not care for starchy foods such as rice, grits, potatoes, etc.

The above mentioned symptoms do not

entirely complete the case records of these three cases but are sufficiently detailed for the purpose of this paper. This type of case is most often diagnosed as chronic constipation, given a rough diet and a prescription for the daily use of some mildly acting cathartic. They show improvement under this treatment as long as the cathartic is used but the habit is vicious. Often no significance is attached to the presence of indican in the urine.

But, as Folin and Denis (4) have shown, indican should be regarded as a rough index of bacterial putrefaction of protein material in the colon. A cathartic, no doubt, clears out the colon and gives temporary relief but to cure the condition the intestinal flora must be changed. This is to be produced by changing the diet. It is evident that the protein intake must be reduced. In the beginning it should be reduced to the minimum which is about 0.3 of a gram for each pound of body weight per day for the average individual. Then it should be increased after four or five days to a quantity sufficient to maintain a nitrogen equilibrium which is, for a man weighing 70 kilos and leading a moderately sedentary life, from 100 to 134 grams daily (6). To make up the caloric value of the diet, which may have been occasioned by lessening the protein intake, the carbohydrate intake should be increased. Pure lactose may be given for a while to produce quicker results. Thus, the intestinal flora is changed, the patient is on a rational diet and indican will no longer appear in the urine.

The three cases above listed were treated as follows; first a thorough purge was given, calomel followed by salts was the choice due to the antiseptic properties of calomel. Then the diet given above was instituted. In addition exercise in the form of walking, was carried out. The three patients have been getting along nicely. The symptoms have entirely disappeared. They have full, normal bowel movements regularly and rarely have to use cathartics.

The point I wish to make is that from a physiological point of view, cathartics, except an initial purge, are not indicated in

the so-called cases of intestinal auto-intoxication; that the continued use of cathartics will aggravate rather than cure it. Secondly, that indicanuria is of clinical significance in these cases, and; thirdly a change in diet and habits will relieve the tendency to constipation and clear up the symptoms.

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BABY SWALLOWS SCARF PIN

Little Francis Covington, age sixteen months, the daughter of Dr. and Mrs. J. F. Covington, of Moultrie, Georgia, swallowed a gold scarf pin two and three-eighths inches long on May 30, 1924. The baby had been critically ill for ten days with acute dysentery and had just begun to show any signs of life when she pulled the pin from her father's scarf and swallowed it. An X-ray



Francis Covington, daughter of Dr. and Mrs. J. F. Covington, of Moultrie.

TUBERCULOUS PERITONITIS SIMULATING URINARY OBSTRUCTION AND CARCINOMA OF THE RECTUM; WITH THE REPORT OF CASE

C. Otis Ritch, B. S., M. D.,
Chicago, Illinois.



X-ray picture showing pin in stomach.

picture was made immediately and revealed the pin head down in the large end of the stomach. Another picture in three hours showed it still head down but it had passed through the stomach and small bowels and was resting at the ileocaecal valve, where it remained sixteen hours. The next picture made at the end of sixteen hours showed the pin had just passed through the valve and was headed upward through the colon. After staying in the colon fourteen hours it passed out. The pin remained in the baby's alimentary tract thirty-four hours. During this period of time the baby had only one attack of pain caused from swallowing the pin, which lasted for only a short time.

The remarkable feature of this case is that the baby had to be fed on a diet that would have ordinarily been considered disastrous when given a child suffering from dysentery.

A hasty survey of the literature on tuberculous peritonitis failed to reveal the problems of diagnosis that we encountered in this particular case. Hence, we are prompted to report the case, not upon its unreasonableness, but due to the problems of diagnosis.

We do not mean by the above statement that tuberculous peritonitis does not present any problems of diagnosis for it is the exception rather than the rule that it is diagnosed in the absence of tuberculosis elsewhere in the body, unless moderately advanced. Consequently when it simulates a condition in an entirely different system of the body its interest is manifoldly enhanced.

This patient was admitted to the hospital March 24, 1923, by the House Doctor to the Urologic Service, where we saw him, because he had an acute retention and gave a history of frequency, straining and dysuria. While the rectal examination at the time did not reveal an enlarged prostate he thought it probable that the obstruction was intravesical.

The salient features of the history and examination follow:

M. S., an American farmer, age 38, white, single.

The Past History was unimportant except that he had Influenza in 1922 of four weeks duration, and was told that an X-ray examination of the chest three months later revealed nothing.

Chief Complaints:

Urinary Retention.

Loss of Weight.

Frequent stools—containing blood and slime.

Abdominal pains.

Nocturia.

Onset and Course:

The patient was in good health until the spring of 1922 when he had an attack of

Influenza from which he made a slow recovery, and in the mean time has lost 15 pounds in weight. About three months later he noticed a pain in the lower part of the abdomen which became more constant and more severe until December of 1922 when the pain became intense. About the same time he commenced to have trouble with his bowels, in that the stools were small but frequent and contained blood and slime. The blood was fresh and small in amount.

He had been having nocturia for 4 or 5 years, at first only once at night but gradually increased until it is 4 or 5 times at night. With a gradual development of difficulty in urinating, by which he means he would have the desire to urinate but started the stream only after a great deal of straining.

He had been unable to void for the past 12 hours. This retention was relieved while sitting in the hot Sitz-bath.

Physical Examination:

Revealed a well developed but poorly nourished individual who "appeared sick." The abdomen was flaccid with diffused tenderness across the lower part, but no actual pain on deep pressure, except over the pubis. No masses palpated.

The examination of the heart and lungs revealed nothing. The blood pressure was systolic 132, diastolic 88.

The external genitalia were negative except for a phimosis. The external urinary orifice admitted a Charriere diagnostic number 28, no strictures or infiltrations could be detected in the urethra.

Rectal examination: there were two moderately large hemorrhoidal tags. The prostate was broad and flat, was not enlarged, hard or nodular. The medial sulcus was preserved. The vesicles were palpable and very hard.

Cystoscopic: the cystoscope passed without difficulty. The ureteral orifices, fundus and bladder walls were normal. There was a medium sized bar, otherwise the cystoscopic was negative.

March 29, 1923, a Neurologic Consultant found nothing additional except that the reaction of the pupils was sluggish, the left

knee kick was a little more active than the right, and a questionable Rhomberg. He advised a spinal puncture and stool examination, both of which are appended.

April 2, 1923, a general surgeon called as a consultant found a mass in the midline and anterior surface of the rectum, about a finger's length from the anus, which felt gristly and well defined.

April 3 another cystoscopic examination was negative except for a well defined bar at the base.

Laboratory Reports:

Repeated urinalysis failed to show any albumin, sugar, casts, pus, blood or tubercle bacilli, except one which showed a few pus cells. In all the cultures were sterile.

On March 27, the blood count showed 5,560,000 red cells, 10,000 white cells, hemoglobin 100 per cent, polymorphonuclears 78, small mononuclears 16, eosinophiles 3, basophiles 1, transitionals 2. This was rather typical of the other four counts.

The Wassermann was negative. The complement fixation test for gonorrhea was three plus.

Spinal Fluid:

Ross-Jones globulins	Negative
Lymphocytes	1/2 cell per cm.
Blood	Negative
Pus	Negative
Wassermann	Negative

Blood Chemistry:

Sugar	65.000
Non protein nitrogen	31.579
Urea nitrogen	11.000
Creatinine	2.346

Faeces:

A moderate amount of blood, otherwise negative.

The patient was transferred to the General Surgeon who operated him April 23, 1923. A low, left, transverse incision was made with inspection of the small and large intestine and omentum. Closure by layers. There were sago to pea sized tubercles on peritoneal surfaces of small and large intestine, most marked on descending colon with numerous nodular masses in sigmoid colon.

On admission to the hospital, March 24, 1923, the temperature was 99° which soon returned to normal after relief of the retention and varied from 98 to 98° until the morning of the operation when it reached 101; then, gradually receded to 97 on May 7, 1923, but rapidly returned to 98 where it remained until dismissed from the hospital.

May 10, 1923, patient dismissed from the hospital, improved, and advised to go to the country. I have recently learned that he died of intestinal obstruction the latter part of 1923.

Conclusion

That tuberculosis peritonitis might cause intestinal obstruction is not interesting; but that it might simulate obstruction of the lower urinary tract is indeed interesting. And that it might simulate carcinoma of the rectum is likewise interesting.

One is certainly justified in suspecting an obstruction of the lower urinary tract in a patient who presents the train of symptoms this case did and whose every symptom could be explained by such an obstruction. The acute retention, loss of weight, and increased frequency are classical symptoms. Hemorrhoids and abdominal pain are also quite common. The former due to the tenesmus and straining, the latter nearly always present with acute retention and also frequently present with dysuria and straining.

While the patient complained of frequent stools the real fact of the case is that he was constipated and was only passing blood tinged mucus.

While prostatic hypertrophy is out of the question in a man of 38; the youngest I ever saw was 46 and I have never heard of one younger, still malignancy of the prostate at this age is possible.

One must also remember that tumors of

the bladder and posterior urethra, as well as strictures of the urethra are common causes of urinary obstruction.

We were certain that the median bar, noted on cystoscopic examination, was not sufficient to cause symptoms in such an aggravated form; so a neurologic consultant was called in so as to determine if there was a neurologic basis for these symptoms. But he was unable to throw any light on the case. We then called in a general surgeon as consultant who found the mass in the rectum as described above. And who operated on the provisional diagnosis of carcinoma of the rectum and found tuberculous peritonitis.

Why this patient should have suffered with symptoms of urinary obstruction from the pathology found at operation, I am unable to say. The median bar would account for the symptoms, in a mild form but certainly not in such an aggravated form. The infiltrated vesicles could play but a minor role. Whether it was a stasis, a reflex nervous action or some other cause I am unable to say.

BOOK REVIEWS

PRURITUS OF THE PERINEUM. On Page 417 of the September issue appears an excellent review of "Pruritus of the Perineum" by Dr. R. A. Bartholomew. However, the following information was omitted: Author, Joseph Franklin Montague, M. D., of the Rectal Clinic, University and Bellevue Hospital Medical College; Fellow American Proctologic Society and New York Pathological Society. Foreword by George David Stewart, M. D., President of the New York Academy of Medicine. Octava, Cloth, with 37 original illustrations. Published by Paul B. Hoeber, Inc., New York City. Price \$3.50 net.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to the Welfare of the Medical Profession of Georgia.
65 Forrest Ave., Atlanta, Ga.

November, 1924

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M. C. PRUITT, M. D., Business Manager
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CHAS. USHER, M. D.
S. J. LEWIS, M. D.
T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

THE USAGE OF GLANDULAR THERAPY IN NERVOUS AND MENTAL DISEASES

It has been stated that any system of therapeutics must be based on established Clinical and Physiologic facts in order to stand the test of time and yet this is hardly true of Glandular Therapeutics. Hippocrates prescribed fried hares brains for Mental and Nervous Ills in 400 B. C. and the Modern Endocrinologist prescribes dessicated sheep brains in 1924 A. D. Therefore, it would seem that the Glandular Therapist can paraphrase Tennyson's Brook Song and say "for Therapeutics may come and Therapeutics may go, but I go on for ever."

Both Hippocrates and the Modern Endocrinologist have claimed remarkable cures in some instances following the use of Organotherapy in Nervous and Mental Diseases but these results are by no means constant nor frequent. The same observations have been made of patients treated by Christian Science or the Witch Doctor's charms, hence it would be illogical to admit that the Clinical fact had been established

in one case and deny that it had been established in the other.

Moreover, physiologists state that gastric juice has the same effect upon animal tissue whether it be fried, broiled or dessicated, and that from a physiological point of view the results are the same whether the tissue be obtained from glands or muscles. From a gastronomic point of view it is conceded that most physiologist prefer their animal tissue in the form of steaks and broiled rather than dessicated, but there are a few who still cling to the Hippocratic method of frying it.

Some sixty years ago Brown-Sequard created quite a furor in the medical world by claiming that the addition of testes to the daily diet of elderly men would cause a complete rejuvenation of their sexual life. Many reports followed his pronouncement which appeared to substantiate the hypothesis. It was subsequently learned that this method of treatment alone did not rejuvenate the patient and that the subtle wiles and seductive blandishments of a most alluring Demimonde were a very essential adjunct, therefore the diet was discontinued. The testicular form of Organotherapy still appealed however, and during the past few years Vorinoff originated a new procedure in the administration of the testes which he is convinced will alleviate the Anxiety Neuroses of old men. Thus far the reports are rather disquieting and it is uncertain whether this distressing malady will yield to the Vorinoff technique.

Within recent years the disciples of Organotherapeutics have advanced some wonderfully beautiful theories regarding the effect of glandular dysfunctions upon our personalities, mentalities and Nervous systems. Thus far they have not been proven to the satisfaction of any unbiased scientific observer and therefore have no more right to recognition than the theories promulgated by the Chiropractor or other unscientific observers.

The cures which are claimed to have followed the administration of pluriglandular extracts could have followed an improve

ment of the diet and hygiene of the patient or resulted from psychotherapy, therefore, they are not to be taken seriously.

The very brilliant results obtained from the use of Thyroid, Thyroxin and Insulin give us hopes that other glands of internal secretion will yield active principles that may be of great service in treating Nervous and Mental Diseases but thus far none other than the above have been isolated that are of any service to the Neuropsychiatrist. Until others have been isolated which can be proven beyond reasonable doubt to be of specific benefit, it would be well to recognize our responsibility to the public and not continue to prescribe glandular extracts whose only virtues are to enrich the manufacturers. The American Medical Association has recognized the harmful effects to the Medical profession which has and is resulting from the pernicious propaganda emanating from many unscrupulous manufacturers of glandular products, and has constantly advised against their use until proof of their worthiness has been established. At present there is a series of articles from the pens of our foremost medical authorities appearing each week in the Journal of the American Medical Association giving all authentic knowledge of Endocrinology known to the medical world which should be read by all physicians before they write another prescription for glandular extracts.

OWENSBY.

**ABSTRACT OF THE REPORT OF THE
JOINT COMMITTEE ON MATERNAL
WELFARE TO THE AMERICAN AS-
SOCIATION OF OBSTETRICIANS,
GYNECOLOGISTS AND ABDOM-
INAL SURGEONS**

Actuated by a comparison of the enormous maternal mortality rate of the United States with seventeen of the civilized nations of the world, according to the statistics published, showing that we have the third highest death rate in sepsis and eclampsia, both largely preventable, this committee was appointed in 1921 at the St. Louis meeting

and a report was rendered in 1922 at Albany.

It is claimed that there has been no general reduction in these obstetrical accidents in twenty-five years, while in sections where pre-natal care and modern methods of aspsis are observed the rate is reduced by one-third to one-half.

Puerperal septicemia and eclampsia claim over one-half of all the patients who die.

Valuable expressions of opinion were received by the committee to their questionnaire sent to every section of the country, asking for suggestions as to remedies for the improvement of maternal morbidity and mortality.

The inevitable conclusion to be drawn from these expressions of opinion, which typify the feeling of a large number of the thoughtful and progressive leaders of the profession, may be summarized in the comprehensive statement that much of the responsibility for the untoward results of childbirth rests within our own ranks.

The rapid decrease in the number of midwives in practice; the more drastic supervision by Departments of Health over them in the regions where they are still popular, or indispensable because of the lack of physicians; the realization that their work, among the part of the population whom they serve, shows no higher percentage of bad results than the general average of the community; these considerations eliminate the midwife as a factor to be reckoned with in the solution of the question of the continued high rate of maternal mortality.

In the towns and rural districts, and very largely in the cities, the family physician, owing to tradition, sentiment, self-interest or convenience, will care for childbirth, and the average result of his work will represent the status from which statistics will be drawn.

This work will continue to be conducted in the home. The great majority of women who are serving to perpetuate the best elements of the human race belong to the class of intelligent, self-respecting families who are dependent on salaries or weekly wages.

The disproportionately small amount of space allotted to the wards of our hospitals, the high price of the rooms and the general coincident expense makes any but charity hospital service prohibitive to this class of women. Special nurses are equally prohibitive. Obviously home confinement involves much greater risk.

The causes operating to lower the standard of the work of the general practitioner have already been suggested. They may be summarized as follows: insufficient training in our medical schools; lack of hospital post-graduate training which will enable the physician, at least, to diagnose abnormal positions; lack of appreciation of the fact that the process of labor is not surgical; lack of dependence on the obstetric specialist for diagnostic council rather than on the young surgeon whose obstetrical experience and preparation may be even less extensive than his own.

It is the part of those of the profession who are fitted by education, by training and by experience to take the lead in instituting a program that will remedy these conditions, and thus raise the standard of the work of the general practitioner.

Obstetrics should be made a specialty of the same rank as surgery. As many hours of the college curriculum should be given to the drilling of the medical student in the principles of the one as of the other. In a larger degree he needs a familiar knowledge of the art of obstetrics, because, regardless of his training, he will, on entering practice be called upon to attend women in labor, long before he will be called to do operative surgery. He hesitates to call counsel in labor regardless of the condition of the patient, because of the possible reflection on his ability. Without question he can call counsel in a surgical case without affecting his professional dignity because surgery has always, with the laity, been considered the part of the specialist. Not infrequently, when counsel is called, the young practitioner yields his own judgment of the need of obstetrical assistance to the demand of the family for the only generally

known specialist, and summons the aid of the surgeon.

Several years ago Dr. J. Whitridge Williams wrote a paper on the teaching of obstetrics, in which some scathing comments were made on the methods which were then employed. There has been some improvement since 1910, but even today, with the enormous shrinking in the number of medical schools, and the practical elimination of privately owned medical colleges, the demand for competent instructors in obstetrics is great, while the quality of teaching is woefully inadequate.

In no other branch of medicine is there so much chaotic difference of viewpoint as in obstetrics; nor is there elsewhere such exhibition of diversified technic as there is in the management of labor. A recent editorial in the Journal of the American Medical Association, commenting on this radical divergence of opinion and its disastrous consequences, sums up the subject by maintaining that in obstetrics, individualization is absolutely the key word.

Among ourselves, as specialists, individualization is possible and desirable. Individualization, however, will not solve the problem for the general practitioner. He must be satisfied with a generalization of the minimum standard of obstetric management.

Certain procedures are now recognized as a part of the routine technic of good obstetrics, that a decade ago were certainly individual, especially those relating to diagnosis and asepsis. The general practitioner, who, as a medical student, failed to acquire the fundamentals of obstetrics, or if he acquired them, fails to apply them, accepts his morbidity and mortality as inevitable because he is callous to their significance.

If every general practitioner, nay, if every man who undertakes the care of a maternity case, could be compelled to take a short post-graduate course every five years, induced to occasionally attend one of the clinics now being held annually in many of the large centers, and be urged mean time to read the standard medical journals, the

result would be quickly appreciable upon the statistics of maternal morbidity and mortality. These have been so long station-

ary that they seem, as it were, to have become a permanent reproach to the doctors of this country. TOEPEL.

District and County Societies

The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific

papers and discussions which the society shall consider worthy of publication.—Constitution and By-Laws, Chap. VII, Sec. 15.

1. Demmond, E. Carson, Savannah.
2. Wood, A. W., Albany.
3. Greer, Chas. A., Oglethorpe.
4. Blackmar, Francis B., Columbus.
5. Clay, Grady E., Atlanta.
6. Hawkins, T. I., Griffin.

7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Joiner, B. O., Tonnille
11. Simmons, J. W., Brunswick.
12. Cheek, O. H., Dublin.

SEVENTH DISTRICT MEDICAL SOCIETY

The Seventh District Medical Society met in Rome, Georgia, Wednesday, September the 24, 1924, with Dr. R. E. Wilson of Cartersville, presiding.

The members of the society and their wives were guests of Dr. J. T. McCall during the day at the Coosa Country Club, where delicious refreshments in the form of barbecued lamb, Brunswick stew and various kinds of cold drinks were served by the generous hearted host. During the afternoon session a unanimous vote of thanks was extended by the society to Dr. McCall for the wonderful manner in which he had entertained his 110 guests on this occasion. It was truly not only the largest attendance in the history of the society, but was one of the best and most enjoyable meetings ever held.

The meeting was opened by invocation from Dr. J. E. Sammons, Pastor First Baptist Church of Rome.

Dr. L. F. McKoy, Vice Chairman of the City Commission, extended a very warm welcome in behalf of the city, which was followed by Dr. M. M. McCord, Secretary, who extended a welcome in behalf of the Floyd County Medical Society.

Dr. C. Van Wood, of Cedartown, in a very graceful manner accepted for the visitors the welcomes which had been extended by the city and president of the local profession.

The secretary read the minutes of the meeting which was held in Dalton in April and the same were adopted.

Dr. B. V. Elmore made a report for the committee on Public Health and Legislation, and showed the relation of birth and death reports to public health.

Dr. M. M. McCord, Councillor for the 7th District, made a brief report of the condition of the District in reference to present membership in the State Association and urged every secretary in the District to be diligent and adopt a rule of collecting the dues each year at the December meeting instead of waiting until March, so that the reports all could get to the State Secretary in due time.

Papers on scientific subjects were taken up as follows:

Treatment of Varicose Veins and Ulcers

.....Dan C. Elkin, Atlanta

Discussed by Drs. Maxwell Harbin and
J. T. McCall, Rome.

Danger Signals in Pregnancy

.....J. L. Chandler, Rome

Discussed by Dr. R. E. Wilson, Cartersville.

The HeartStewart R. Roberts, Atlanta

PertussisP. O. Chaudron, Cedartown

Discussed by Drs. Maddox of Rome and
Roberts of Atlanta.

Latent Sinus DiseasesGeo. B. Smith, Rome

Discussed by Dr. Ross P. Cox, Rome.

The Acute Appendix ...C. T. Nolan, Marietta

Discussed by Dr. R. M. Harbin, Rome.
Diagnosis and Treatment of Trachoma

.....Ross P. Cox, Rome

Discussed by Drs. Smith of Rome and
Abercrombie of Atlanta

The Nervous InfantM. M. McCord, Rome
Acute Infection of the Knee Joint

.....Trammell Starr, Dalton
My Ideals for Medical Association of GeorgiaJ. O. Elrod, Forsyth

The address of Dr. Elrod was highly enjoyed by every one present.

Marietta and Cedartown were put in nomination for next meeting place. Cedartown won.

The next meeting of the society will be held in Cedartown next April.

There being no further business the society adjourned at 4 P. M.

M. M. McCORD, M. D., Secretary.

TROUP COUNTY MEDICAL SOCIETY

The Troup County Medical Society held their regular monthly meeting September 25, 1924, at the First Presbyterian Church. An interesting paper was read by Dr. Edson W. Glidden, Superintendent of the State Tubercular Hospital at Alto, on "Tuberculosis, Its Symptoms and Treatment." Discussion among the Society followed reading of the paper. Dr. Glidden indicated also that splendid work is being done at the State institution and that Georgians have reason to be proud of the Hospital as it is equipped and operated. A luncheon was served at 7 o'clock by the ladies of the church.

The Troup County Medical Society is one of the few societies in the State that is 100 per cent in membership, having 35 members.

MUSCOGEE COUNTY MEDICAL SOCIETY

On Friday, October 10, 1924, the Health Department of the City of Columbus, was host at a barbecue for the Muscogee County Medical Society and the Board of City Commissioners. The entertainment was held on

the grounds of the City Hospital. Dr. J. A. Thrash, as head of the City Health Department, arranged for this get together meeting and Dr. J. H. McDuffie, Sr., President of the Muscogee County Medical Society presided. Short addresses were delivered by the Commissioners, members of the Hospital Board, Dr. G. S. Murray, Chief of the Hospital Staff, Dr. F. L. Cosby, Jr., County Health Officer, and Dr. J. A. Thrash, head of the City Health Department.

FULTON COUNTY MEDICAL SOCIETY

Two very interesting regular meetings of the Fulton County Medical Society were held at the Academy of Medicine, 32 Howard St., Atlanta, September 18th and October 2nd. Dr. W. E. Person presided at the September meeting with an attendance of 218 members. Dr. Arch Elkin introduced Dr. William Englebach to the Society. Dr. Englebach spoke for one hour on the subject, "Treatment of Endocrine Disturbances." Dr. R. E. Newberry read a paper on "Treatment of Various Ulcers of the Leg." This was discussed by Drs. S. Stampa, Dan Elkin, W. F. Wells, Cosby Swanson and S. J. Sinkoe.

At the October meeting, Dr. J. Calvin Weaver presented a patient with his paper, "Brain Abscess Resulting from Foreign Body." "An Unusual Accident in Cystoscopy—A Case Report" was the subject of the paper read by Dr. Stephen T. Brown. Dr. F. C. Nesbit gave a clinical talk on "A Consideration of Syphilis, Clinical and Therapeutic," which was discussed by Drs. Thrash, Fanning, Wells, Jones, Upchurch, Owensby, Caldwell and Estes. Dr. C. W. Roberts presented to the Society a picture of the late Dr. E. P. Merritt. Dr. M. McH. Hull introduced Dr. J. B. Patterson, from Korea, to the Society. Dr. Patterson spoke for several minutes on "Medicine in Korea." The paper of the evening "Use of Insulin in Diabetics with Surgical Complications" was read by Dr. J. E. Paullin and discussed by Drs. L. W. Grove and John W. Turner.

Respectfully submitted,

GRADY E. CLAY, Secretary.

CONSTITUTION AND BY-LAWS OF THE WOMAN'S AUXILIARY, FULTON COUNTY MEDICAL SOCIETY

Constitution

Article I. Name

The name of this Association shall be the Woman's Auxiliary to the Fulton County Medical Society.

Article II. Object

The object of the Auxiliary shall be to extend the aims of the medical profession through the wives of doctors to the various women's organizations which look to advancement in health and education; to assist in the entertainment of State, District and County society meetings; to promote acquaintance and good fellowship among physician's families that local unity and harmony may be increased.

Article III. Membership

The wife, or widow, of each member of the Fulton County Medical Society is eligible to membership in the Woman's Auxiliary, upon payment of dues.

Article IV. Officers

The officers of the Auxiliary shall be a President, three Vice-Presidents, a Recording Secretary, a Corresponding Secretary and a Treasurer.

Article V. Executive Board

The officers of the Auxiliary and chairman of standing committees shall constitute an Executive Board to conduct the business of the Auxiliary.

Article VI. Elections

Section 1. All officers (after 1924) shall be elected annually by ballot at the regular meeting of the Auxiliary in May.

Section 2. At the regular meeting of the Executive Board in April, a Nominating Committee of three members shall be elected to prepare a ticket to be presented to the Auxiliary at the May meeting.

Section 3. Nominations from the floor shall be in order.

Article VII. Amendments

This Constitution may be amended at any regular meeting of the Auxiliary provided announcement of such procedure shall have been made at one previous regular meeting.

By-Laws

I. Duties of Officers

The duties of President, Vice-President, Secretaries and Treasurer shall be those which usually devolve on such officers.

II. Committees

Section 1. The President and Executive Board shall have power to create such committees as may become necessary to promote the business of the Auxiliary.

Section 2. The President shall appoint the chairman of all committees.

Section 3. The President shall be ex-officio member of all committees.

III. Quorum

Five members of the Executive Board shall constitute a quorum.

IV. Amendments

These By-Laws may be amended at any regular meeting of the Auxiliary by two-thirds vote of the members present, provided such amendment does not conflict with the spirit of the Constitution.

V. Meetings

The meetings shall be held the first Friday of each month at eleven a. m., at the Academy of Medicine.

VI. Dues

Section 1. The annual dues shall be two dollars for each member.

Section 2. The fiscal year shall coincide with term of officers.

NEWS ITEMS

Dr. Ralph S. Torbett, who has been practicing internal medicine in Columbus for two years, has moved to 518 Stovall Building, Tampa, Florida, where he will continue the same line of work. Dr. Torbett for the past year has been the efficient Secretary-Treasurer of the Muscogee County Medical Society.

Dr. F. L. Cosby, Jr., and Dr. O. C. Brannon have moved from Columbus, where they were members of the Muscogee County Society, to Miami, Florida. Dr. Brannon is in charge of the Hospital of the Coral Gables Construction Company and Dr. Cosby is engaged in general practice.

Of great interest throughout the State is the ordering of the statue of Dr. Crawford Long for the Hall of Fame. The contract

Dr. Allen F. Caldwell, of Atlanta, has opened offices in the Grant Building for the practice of urology.

Dr. M. M. McCord, of Rome and Councilor of the Seventh District, is making an earnest appeal to the doctors of the District to get them to pay their annual dues to the State Association at the December meeting rather than defer the matter to March in order to get the report to the State Secretary on time.

Drs. H. M. Hall, and P. O. Chaudron, of Cedartown, have recently equipped an up-to-date Hospital near the business center of Cedartown to take care of their surgical patients. A laboratory and X-ray are operated in connection with their Hospital.

Dr. G. W. Battle, of Cassville, was confined to Harbin Hospital, Rome, for several days in September as a result of an infected hand.

Dr. W. P. Harbin, of Rome, has recently returned from a trip to Philadelphia, where, in addition to putting his son in Penn State, he attended some interesting surgical clinics.

The Seventh District Medical Society was recently honored at their Rome meeting by a visit from Dr. J. O. Elrod, President of the State Association.

The doctors of Rome will soon have a modern and up-to-date office building, as the First National Bank, of Rome, is spending \$100,000 to remodel their building. The 2nd, 3rd and 4th floors will be occupied for offices by the doctors of Rome.

Dr. Ferdinand W. Hinkle, Atlanta, has returned after taking a three month's course at the Post-Graduate Hospital and Medical School of Chicago. Dr. Hinkle completed courses in genito-urinary diseases, cystoscopy, endoscopy, dermatology and X-ray therapy.

The friends of Dr. T. E. White, of Fitzgerald, will regret to learn that he was in an accident in which a freight train ran into his car, while he was en route to see a patient. Dr. White was not dangerously hurt.

As we go to press, we learn with regret that Dr. G. W. Webb is seriously ill and in an unconscious condition at his home in Covington. He has been in feeble health for some time.

Dr. W. Park Phillips, a member of the Troup County Medical Society, has returned to his home in LaGrange after spending two weeks in New York attending clinics at the Babies' Hospital.

Dr. J. C. Hudgens has opened offices in the First National Bank Building at Elberton. Dr. Hudgens, since obtaining his M. D. degree at the University of Georgia, Augusta, has spent three years in hospital work in Augusta besides completing a course in the treatment of nervous and mental diseases at Washington, D. C.

Dr. H. C. Ellis, of McDonough, has moved into the offices formerly occupied by Dr. D. W. Scott, after having them remodeled.

Dr. Thos. W. Taylor, formerly of West Point and a member of the Troup County Medical Society, has moved to Dozier, Alabama.

Dr. B. D. Blackwelder, of Gainesville, has recently been elected Health Officer for the city of Waycross. Dr. Blackwelder was recommended by the State Board of Health.

Mrs. H. A. Barron entertained at a 6 o'clock dinner party at her home in Thomas-ton in honor of the Upson County Medical Society, of which her husband, Dr. H. A. Barron, is a charter member. After dinner a business meeting was held.

has been signed and the sculptor, J. Massey Rhind, has already been paid \$1,000, to complete it not later than December 1, 1925. The statue is to cost \$9,000. \$7,500 of this has been raised, making \$1,500 more needed. Contributions should be sent to Dr. Frank K. Boland, President of the Crawford W. Long Memorial Association, or Dr. W. J. Blalock, Treasurer, both of Atlanta.

The Elberton Hospital, which is operated by Drs. J. E. Johnson, A. S. Johnson and J. P. Eberhardt, is now open to the public. It is a two-story, modern and well-equipped Hospital of 15 beds.

Dr. William Engelbach, of St. Louis, was in Atlanta recently inspecting the Good Samaritan Clinic, which is entirely charity and devoted to the diseases of the ductless glands.

Dr. W. W. Young announces the opening of offices at 41 Forrest Avenue, Atlanta. Dr. Young will limit his practice to neuropsychiatry.

Dr. R. H. Oppenheimer has taken up his duties as Superintendent of the Wesley Memorial Hospital, Atlanta. Dr. Oppenheimer was a resident physician at Grady Hospital, Atlanta, for the past three years.

Dr. Edson W. Glidden, Superintendent and Medical Director of the State Tuberculosis Sanatorium, at Alto, attended the 26th annual conference of the American Hospital Association held in Buffalo, N. Y., October 6-10, 1924.

The Tuberculosis Conference, Columbus District, was held at Columbus, Georgia, October 2-3, 1924. Interesting papers were read by Dr. J. M. Anderson, Chairman, of Columbus, Dr. J. H. McDuffie, President Muscogee County Medical Society, of Columbus, Dr. J. A. Thrash, Dr. F. L. Cosby and Dr. Edson W. Glidden.

Dr. and Mrs. S. A. Boland and daughter are being welcomed as new citizens in Thomson. Dr. Boland had formerly been practicing in Cornelia.

Dr. John P. Kennedy, Atlanta Health Officer, left Atlanta October 17th to attend a meeting of the American Public Health Association, in Detroit.

Mrs. Fred Pound, R. N., formerly Mrs. Arzaner Jackson, is now located at 155 Boulevard DeKalb, Rowland Park, Atlanta, and has capacity for a few patients who require childhood attention. These patients would receive the closest attention and splendid service.

STATE BOARD OF MEDICAL EXAMINERS

Dr. J. W. Palmer, of Ailey, was re-elected President of the State Board of Medical Examiners at their annual meeting held in the House of Representatives Hall at the State Capitol, October 14, 1924. Other officers elected were Dr. W. C. Williams, of Cochran, Vice President, and Dr. C. T. Nolan, of Marietta, Secretary-Treasurer. The State Board again evoked the licenses of Drs. N. A. and T. W. Hugh, of Atlanta, on charges of having advertised cures of social diseases, and having been convicted in the federal courts of Texas for improper use of the mails. The Board took similar action several months ago, but the two physicians appealed to the courts, where the action of the Board was upheld. Dr. J. G. Foster, of Marietta, represented the Board in the hearing. Members of the State Board present were: Dr. A. F. White, Flovilla; Dr. N. Peterson, Tifton; Dr. O. B. Walker, Bowman; Dr. H. C. Maxey, Maxey; Dr. C. M. Paine, Atlanta; Dr. H. F. McDuffie, Atlanta, and Dr. B. T. Wise, Plains.

COMMITTEE ON NATIONAL DEFENSE

The following have been appointed on the Committee on National Defense, by Dr. J. O. Elrod, President of the Association:

1st District—Dr. R. E. Graham, Savannah.

2nd District—Dr. H. M. Moore, Thomasville.

3rd District—Dr. J. C. Patterson, Cuthbert.

4th District—Dr. W. F. Jenkins, Columbus.

5th District—Dr. Frank K. Boland, Chairman, Atlanta.

6th District—Dr. Linwood M. Gable, Griffin.

7th District—Dr. Chas. V. Wood, Cedar-town.

8th District—Dr. Eugène F. Griffith. Eatonton.

9th District—Dr. John K. Burns, Gainesville.

10th District—Dr. Francis X. Mulherin, Augusta.

11th District—Dr. G. T. Crozier, Valdosta.

12th District—Not a Reserve Officer in 12th District.

MARRIAGES

Dr. Chandler S. Lynch and Miss Mabel Lynch, both of Lumpkin, were married at the home of the bride, Friday evening, October 3, 1924. Dr. Lynch received his M. D. degree from Emory University. He is a member of the Stewart-Webster Counties Medical Society.

OBITUARY

Dr. J. H. Nisbet, prominent physician of Hapeville, after a long illness, died Saturday, October 4, 1924, at 72 years of age. Dr. Nisbet was graduated from the Eclectic College of Medicine in 1885 and had practiced medicine for over forty years in Clayton and Fulton Counties.

Dr. John R. Brooks, well-known physician of Agricola, after an extended illness died at the University Hospital, Augusta, October 6, 1924. Dr. Brooks had been a practicing

physician for forty years and was 57 years of age at his death. He was the father of Dr. Thomas Gibson Brooks, of the University Hospital, Augusta.

Dr. Lacey B. Lovett died at his home in Sparks, Friday, October 10, 1924. Dr. Lovett had been in ill health for the past two or three years but had been confined to his bed for the past three weeks. He was a member of the Cook County Medical Society and represented his County Society as Delegate at the annual meeting held this year in Augusta. Dr. Lovett was 52 years of age.

Dr. Henry Albert Herman, of Sandersville, died at his home, October 14, 1924, at the age of 54. On account of ill health, Dr. Herman was forced to retire from active practice two years ago. He was a graduate of the Atlanta Medical and Surgical College and had been practicing medicine for the last 15 years. During the hours of the funeral business houses in Sandersville were closed.

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THE RADIOGRAPHIC FEATURES OF URINARY CALCULI IN RELATION TO THEIR CHEMICAL COMPOSITION AND STRUCTURE

H. P. Winsbury White, London. The British Journal of Surgery, July, 1924

Calcium oxalate and calcium phosphate give very good shadows. They are very common constituents of urinary calculi. The high opacity is due to the high atomic weight of the calcium present in these salts. All the other common urinary salts give relatively poor shadows. They include the urates, uric acid, and triple phosphate. Cystine and xanthine also give poor shadows in the pure state, but slightly more opacity than the foregoing owing to the sulphur they contain.

It is rare for any of the foregoing substances to be the sole constituent of a stone. This applies to cystine as well as the more common varieties. There is frequently calcium oxalate or phosphate present.

The figures of different observers giving the relative incidence of different salts in calculi have been conflicting. Recent observers, however, are agreed upon the preponderance of calcium oxalate in renal and ureteral stones, and of uric acid and urates in bladder stones. Phosphate is found in larger proportions as a constituent of bladder stone than renal stone. It frequently surrounds a nucleus of oxalate, or uric acid or urate. Stones of uric acid or urate in the kidney or ureter soon become mixed with calcium salts, after which they can be identified by radiogram.

Exploratory operation for stone is rarely justified when a radiogram is negative.

Vesical calculi consisting largely of uric acid or ammonium urate sometimes fail to cast a shadow in radiograms. Cystoscopy is a great aid in the diagnosis of urinary calculi.

W. R. HOLMES.

CARCINOMA OF THE BODY OF THE UTERUS

(With the Report of 115 Cases)

Norris, C. C. and Vogt, M. E. Am. J. Obst. and Gynec., 1924, VII, 550.

Carcinoma of the uterus may be divided into that form which originates in the cervix and that which springs from the fundus. These are different tumors, histologically and clinically and a definite line should be drawn between them. Among the 12,514 gynecologic patients observed during the last 23 years at the University Hospital, there have been 115 cases of fundal carcinoma. During a like period 346 cases of cervical carcinoma have been observed among 756 cases of carcinoma of the genital tract. Carcinoma of the fundus constituted about 15.2 per cent of all cancers of the genital tract and about 25 per cent of all uterine cancers.

Carcinoma of the fundus is generally a disease of advanced life occurring on an average somewhat later than carcinoma of the cervix. In the series of cases reviewed more than 71 per cent of the patients were 51 years of age or older. It would appear that child-birth plays little part in the etiology of this neoplasm. Twenty-six per cent of the women were unmarried.

The most important symptoms are hemorrhage and discharge. In 81 per cent hemor-

rhage was the first symptom. Pain, cachexia and loss of weight generally indicate an advanced and inoperable tumor. With only 25 per cent of cases presenting themselves in the early stage and only 34.8 per cent of three-year patients alive, the importance of early diagnosis may be recognized. Absence of pain and the non-recognition of the significance of irregular bleeding account for the majority of advanced cases. The histologic examination of curettings offers an almost certain means of diagnosis, even in the early cases. The Clark test which consists in the passage of a sterile sound is of great practical value. Absence of bleeding following this test goes a great way towards excluding carcinoma. The test is an office procedure, and its more general adoption will result in the recognition of many early cases. In this series, the clinical diagnosis was correct and positive in 57 per cent of cases; the cancer was suspected in an additional 23 per cent and 19 per cent, the cancer was unsuspected. In 75 per cent of the unsuspected cases, the symptoms resulting from cancer were masked by those produced by pre-existing myomata. The combination of adenocarcinoma of the body of the uterus and myoma is a frequent one; 20.8 per cent of the present series of cancers were associated in these tumors.

The prognosis depends chiefly on the integrity of the myometrium. The duration of the symptoms has direct ratio to the percentage of permanent cures. Of the patients who had had symptoms for six months or less, 56.5 per cent were alive at the end of three years. Of those with symptoms for from seven to twelve months, 31.2 per cent survived, and of those with symptoms for more than one year only 17.8 per cent survived.

The treatment of choice is panhysterectomy and bilateral salpingo-oophorectomy. Post-operative irradiations with radium or deep X-ray are of distinct value. Radium irradiation is the greatest palliative and results in greater comfort of the patient and prolongation of life. Hysterectomy gave a three year cure in 37.5 per cent whereas in

a like series, irradiation resulted in a three-year cure in 45 per cent. If the group treated by irradiation had been larger it would probably have been found that hysterectomy gave better results.

In the early cases hysterectomy gave a three-year cure in 42 per cent. The operative mortality from hysterectomy was 7 per cent and from radium 6 per cent.

Carcinoma of the fundus must be considered a relatively malignant form of cancer. The teaching that 60 to 75 per cent of the cures are permanent is fallacious.

Preliminary curettage plays little part in the dissemination and its value as a diagnostic procedure far outweighs its disadvantages. Without diagnostic curettings, the majority of early cases would be overlooked or many normal uteri sacrificed.

Carcinomatous degeneration occurred in less than 3 per cent of endometrial polypi. All of these patients are alive. In these cases the important points are the condition of the pedicle of the tumor and whether an implantation growth has occurred.

W. R. HOLMES.

THE STERILIZATION OF NOSE AND THROAT DIPHTHERIA CARRIERS WITH THE ULTRA VIOLET RAY

Leo C. Donnelly, of the Detroit Board of Health, treated forty or more cases of chronic nose and throat diphtheria carriers with ultra violet rays from the Kromayer lamp. With perfected technique all nose and throat carriers thus treated have been sterilized as far as he knows. The treatment is simple and practically painless. The ultra violet rays are projected onto the tonsils through a hollow tube applicator six inches long, one-half inch in diameter, with the end slanted so that it fits over the tonsil, the rays being directly played on all portions of the tonsils for three to five minutes. One to three applications may be required to cover each tonsil entirely. Fully fifty per cent of his later cases were sterilized with one treatment. Some have required four treatments. All cases were subsequently cultured by the Detroit Board of Health.

The technique in treating nasal carriers is but slightly different. The mucous membrane is contracted by the application of 10 to 15 drops of adrenaline chloride solution. A flattened, curved quartz rod nasal applicator is used. Ten minutes time is taken for each nostril, the applicator being slowly worked back as far as it will go and then slowly withdrawn, endeavoring to distribute the rays evenly.

In the same laboratories diphtheria cultures were exposed to direct sunlight between 12 noon and 2 p. m., when the sunlight was intense. Petri dishes exposed as long as 15 minutes showed very little inhibition of growth. However, cultures exposed to ultra violet rays for three minutes were killed.

(Journal Michigan State Medical Society, September, 1921)

W. W. ANDERSON.

A CLINICAL STUDY OF HYPERNEPHROMA

Max Cutler. Bull. Johns Hopkins Hosp.,
1924, XXXV, Page 214

Thirty-two cases of hypernephroma are analyzed by Cutler. Only those cases in which the diagnosis was established either by examination of tissue removed at operation or by autopsy were included in this series. Recent pathological studies have demonstrated that a large proportion of the reported hypernephromas are in reality renal adenocarcinomas. In this series the diagnosis of hypernephroma has been restricted to those tumors, the structure of which is duplicated by tumors of the adrenal gland itself.

The average age at which diagnosis of hypernephroma was made was fifty-one years. The youngest patient was 37 years old and the oldest 67 years. Sixty-six per cent of the cases occurred between the ages of forty and sixty. It is generally agreed by most authors that there is a slight preponderance in favor of males, in the occurrence of hypernephromas. In this series twenty-three cases were in males and nine in females. A combined series from the

literature of 107 cases shows 63 per cent males and 37 per cent females. From this it seems that the condition is practically twice as common in males as in the female. The combined series shows that both kidneys are involved with equal frequency.

The average duration of symptoms from the time of appearance of the first symptom to the time of operation in this series is three and one-half years.

Hematuria was by far the commonest symptom. Gross hematuria occurred in 81 per cent of the cases; microscopic hematuria in 94 per cent. Hematuria was the initial symptom in 68 per cent of the cases. The initial hematuria commonly followed some form of over-exertion; it was usually profuse, intermittent and irregular. The presence of either gross, microscopic, or chemical hematuria is practically essential for the diagnosis of hypernephroma. Only those rare cases in which the renal tumor occupied the cortex of the kidney and was well away from the renal pelvis produced no hematuria. Pain, which was the second commonest symptom was present in 91 per cent of the cases. Renal colic was present in two-thirds of the cases. The colic was less severe than that due to renal stone and was usually associated with the passage of worm-like clots. The passage of worm-like clots associated with renal colic should, therefore, arouse the suspicion of kidney tumor. Dysuria and urinary retention occurred in 25 per cent of the cases. Frequency of urination is rare. It occurred in only 12 per cent of the cases. A tumor mass was palpated on physical examination in 80 per cent of the cases. Constitutional symptoms, consisting of weakness, general malaise, dyspnoea, and loss of weight were present in 60 per cent of the cases. The blood findings are those of a secondary anaemia of varying degree. The white blood counts were practically normal throughout the series. The total phthalein excretion was but slightly impaired.

There is a definite impairment of kidney function in the diseased kidney, as indicated by the diminished phthalein excretion on

the affected side. In 75 per cent of the cases there was an elevation of temperature of 99° F. or above.

The diagnosis of hypernephroma is based chiefly on the history of hematuria and pain, palpation of a mass in the kidney region, unilateral hematuria as indicated by cystoscopic examination, diminished kidney function on the affected side, and the presence of a distorted kidney pelvis, as revealed by pyelography. Of all the patients operated on, two failed to survive the operation, and four more died in the hospital. Four are known to have died since leaving the hospital at intervals varying between one and three years. Eight are known to be living at intervals of eight months to nine years, and fourteen could not be traced.

W. R. HOLMES.

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Original Articles

OBSERVATIONS ON CAUSE AND TREATMENT OF VERNAL CONJUNCTIVITIS*

A. G. Fort, M. D.,
Atlanta, Ga.

The diagnosis and treatment of conditions due to hypersensitiveness has marked a great advancement in medicine. Many diseases, the causes of which were to us unknown, have been proven to be due to some foreign protein or irritant, and by the proper methods have been relieved. We believe that under this head falls vernal catarrh, and will present the facts found in dealing with thirty cases in the Clinic—Ophthalmological Section—Grady Hospital (colored), under auspices Emory University School of Medicine.

Vernal conjunctivitis is described as a disease of the conjunctiva of the lid and globe, characterized by the formation of papillae on the conjunctiva of the tarsus, after assuming "cobblestone" appearance, and by gelatinous elevations on the conjunctiva of the eyeball surrounding the cornea, giving a brownish appearance to the globe. These

elevations may surround the cornea or may be seen at any point at the limbus. The disease has a tendency to periodicity.

Symptoms of this disease are constant, and are photophobia and lacrimation. The history in each case revealed the fact that they suffer each year either in early spring or fall and after about six weeks the symptoms subside to return again about the same dates the following year.

Examination of the lids in only a few cases revealed involvement of the papillae of the tarsus, although all showed gelatinous elevation at the limbus and a peculiar brownish hue to the sclera. Age of the patient seemed to be an important factor; sex seemed to have no relationship. (See Table 1.)

As our investigations were limited only to colored we are not able to state the relative frequency of vernal conjunctivitis in the white and colored races—only two whites are included in this report.

It is known that during an attack of hay fever there is always an increase in eosinophiles in the blood.

Table I

21 months to and including 5 years	6 to 10 years	11 to 15 years	23 years	Male	Female
13	11	5	1	16	14

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

Emrys-Roberts (1), who himself was a sufferer from hay fever, states that he always had an increase in eosinophiles during an attack. He thinks 4 per cent eosinophilia marks the beginning of an abnormal number.

Luedde (2) states careful studies of the general health have failed to reveal any condition sufficiently constant to be directly associated with individual susceptibility to vernal conjunctivitis, while Axenfeld (3) quoted reports of general lymphocytosis, which coincided with Luedde's investigations. His view was endorsed in subsequent discussion by Gallemarets, who had noted an increase in eosinophile lymphocytes. Butler (4) reports a slight but constant eosinophilia.

Pusey (5) states he found eosinophil polymorphonuclear leucocytes in smears taken from the conjunctiva in a series of cases of vernal catarrh, confirming Herbert's discovery. In smears taken from the conjunctiva of a series of cases of hay fever he has found the same thing. The cellular content found in smears from one disease is the same as that found in the other. This, he thinks, is particularly important inasmuch as the eosinophile content from all other conjunctival infections is negligible. He suggests that as we know hay fever is pollen produced, we should be led to consider the possibility of vernal catarrh as being caused by pollen.

Study of Table II shows, first, smears from the conjunctivae show eosinophiles in seven out of sixteen cases; second, blood ex-

amination shows a constant eosinophilia. I consider 2% to 4% slight, but where no case shows less than 2%, and 11 out of 19 show 4% and more, we are led to believe this is a definite finding.

Eosinophilia from the presence of intestinal parasites is ruled out, as in every case where the stool was examined for same none were found.

We did not stop with these findings, but accepted the theory that vernal conjunctivitis is a kindred disease to hay fever, and that the manifestations of this disease are caused by a hypersensitiveness of the conjunctiva of children (see Table I) to some foreign substance, and most likely pollen, as this hypersensitiveness manifests itself during the pollinating period or season for grasses and trees. We followed the plan as set forth by the American Hay Fever Association (6), and made diagnostic skin tests with pollen and noted the reaction.

The cutaneous tests were made as follows: Scrub an area one inch by one inch on forearm and remove a small area of epidermis with a sterile needle. Three small abrasions are usually made, one for the spring pollen, one for the fall pollen, and one as a control. Where there was an increased hyperaemia or a definite wheel we considered the reaction positive (see Table II). All of our cases so examined showed a positive reaction. We then proceeded to treat with pollen extract as suggested by the American Hay Fever Association (6). Our results have been uniformly good, as

Table II

Eosinophilia Study				Pollen Vaccination Study		Treatment by Pollen Inoculation	
Number of Cases							
Smears from		Blood	19	Positive to		With Spring Pollen	12
conjunctiva	16	2% to 4%	4	Spring Pollen	17	With Fall Pollen	3
Positive	7	4% to 16%	15	Fall Pollen	4	Results:	
Negative	9			Positive both	3	Cured	2
						Improved	13

Spring Pollen: Timothy and Bermuda Group.

Fall Pollen: Ragweed Group.

shown in Table II. Of the 15 so treated we have had two cures and thirteen with much improvement. Improvement has been marked and prompt.

These facts are here presented not that they are of special interest to the Medical Association of Georgia as a whole, but as they represent work in a new field, and set forth the results of many hours of study and much painstaking care.

(1) Emrys-Roberts, E. Alterations in the Blood occurring in Hay Fever. *British Medical Journal*, London, 1914, Vol. 1, pp. 1176-1178.

(2) Luedde, W. H. Notes on Vernal Conjunctivitis. *Arch. Ophth.* XLIX., pp. 43-63, 1920.

(3) Axenfeld. *Bull. et Mem. Soc. Franc. d'Ophthal.* 24, 1907, pp. 1-199.

(4) Butler. *British Jour. Ophth.* Vol. 1, 1917, pp. 411.

(5) Pusey, B. Eosinophil Cells and Pollen Catarrh. *Journal A. M. A.*, 1911, Vol. LVII., p. 1207.

(6) Reprint No. 545, Public Health Report, August 1, 1919, Treasury Department, U. S. Public Health Service.

Discussion on Paper of Dr. A. G. Fort

DR. G. H. LANG, Savannah: The paper Dr. Fort has just read I think should not go unnoticed by us who do a special line of work in diseases of the eye. It is a new endeavor and certainly deserves further investigation. We are all aware that vernal catarrh is unsatisfactory to handle. We have run the gamut of drugs and usually wind up where we started. The thirty cases presented by Dr. Fort certainly show some connection between vernal catarrh and hay fever. If he has obtained two absolute cures and relief in many other cases by injection of the pollen he has done a lot, and I wish to thank him for bringing it to our attention. The thing is certainly well worth while and should have further investigation.

DR. J. L. HIERS, Savannah: I think Dr. Fort said that he had more patients among the colored race than among the white. In my experience I have had more white patients than colored. I think he has covered the field of causes so thoroughly that it is not necessary to say anything along that line. I am sorry he did not go a little more into detail as to treatment. While the pollen treatment is considered most ex-

cellent, I have found climate—this is a little bit like the man who was describing the wonderful climate in California—a most excellent adjunct in the treatment of vernal catarrh. Local medication can do little, or anything else except keeping them clean and comfortable. Sometimes tinted glasses for patients suffering with photophobia are of value.

DR. A. G. FORT, Atlanta (Closing): The reason we referred only to the colored patients is because we had only two white patients and they in our private practice which were included. Our clinic in connection with Emory University is confined entirely to colored people, and our study has been limited almost entirely to that race.

The treatment has been carried out by pollen extracts and it depends upon whose preparations one uses as to whether a unit of one type or a unit of another is used. We begin with 1/1000th of a unit and gradually run that up within two or three weeks to where we give them 50 or 75, or even 100 units of the special pollen extract. We treat them as often as we can get them to return for same, usually twice a week for three weeks.

TUBERCULOSIS OF THE EYE*

Francis B. Blackmar, M. D.,
Columbus, Ga.

While tuberculosis of the eye is not seen every day it embraces one of the most common of inflammatory eye conditions, chronic phlyctenular ophthalmia. Ocular tuberculosis is rarely primary in the eye.

Just as Hutchinson teeth often direct immediate attention to a syphilitic etiology, so certain changes in the eye, if recognized and given their proper interpretation will direct a more careful examination of the lungs. The result will often be that findings, which at a former examination might have been disregarded, are now more than suspicious.

*Read before the Fourth District Medical Society at LaGrange, August 14, 1924.

This is not an exhaustive consideration of tuberculosis of the eyes but rather an attempt to draw attention to the fact that tuberculosis in the eye is divided into two classes, one of which is very rare and the other very common (3) (4). It would be well for all general practitioners to be conversant with the more common type of lesion as a sign of tuberculosis somewhere else in the body.

In the active type tubercle bacilli are present and cause typical changes with which we are so familiar in other parts of the body. In this type the pathologic unit is the miliary tubercle. There may be ulcers of the conjunctiva or tumors inside or outside the eye composed of many of these tubercles growing together. These usually rapidly progress to destruction of the eye. In the section made from the tumor removed from one of the cases cited, that of the man, there is a tubercle showing the typical pathology of tuberculosis, whether it is in the lung, brain, intestine or eye.

Luckily the conjunctiva is immune to infection by the tubercle bacillus brought to the eyes by dust, fingers, etc., unless it has recently been injured. If it were not for this fact we would be surrounded by tuberculosis of the conjunctiva on all sides (2).

The second type is more common and more difficult to demonstrate as definitely tubercular. The case of the lady falls into this class. Usually there are only doubtful tubercular findings elsewhere in the body. In this type we do not find tubercle bacilli or any of the changes so common in tuberculosis. In phlyctenular ophthalmia, which is illustrative of this type, the pathological picture is one which we would have with any localized inflammation of the conjunctiva. First, there is an accumulation of leukocytes, most frequently at the limbus, where the conjunctiva joins the clear cornea. Such an eye may show a small knob-like elevation at this point with inflammation of the neighboring conjunctiva. The eye is most sensitive to light. The top of the pin

head elevation next sluffs off and the eye is still more sensitive to light, if possible. In a short time the small ulcer heals (although rarely it may perforate the eye) and a shiny slightly concave area is left. There may be more or less cloudiness at the site of the ulcer. These remains are permanent and typical of pre-existing phlyctenular ophthalmia. Usually one ulcer follows another until the scars left by them destroy the functional ability of the eye to a greater or less amount dependent upon the number of ulcers which have occurred. These cases give positive family histories almost without exception, and positive Von Pirquet reactions. They are probably best controlled by injections of tuberculin than by any other therapeutic agent. It is usually impossible to get any more definite evidence of tuberculosis than this. The physical signs in the lungs are usually doubtful or absent all together. The X-ray shows only slight evidence if any.

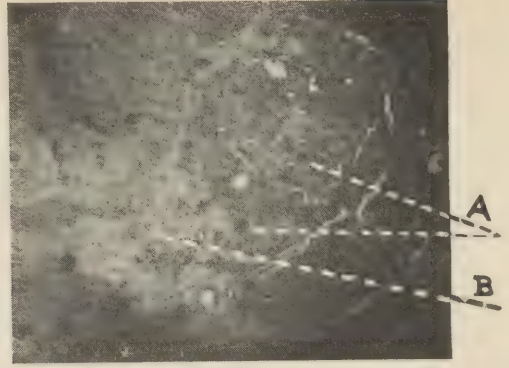
Active cases of tuberculosis usually pass out or become latent and so there are far more people with latent tuberculosis than active cases, likewise whereas active tuberculosis of the eye is most infrequent, the phlyctenular evidence of latent tuberculosis is one of the most common of inflammatory eye disorders and causes an appreciable percentage of blindness.

The two following cases are typical of their respective classes of infection:

Case 1. Negro boy 16 years old. One year ago growth appeared upon the inside of the lower lid of each eye. This became larger until it was excised after six months. The growth recurred and six months later the patient applied for admission to the hospital suffering from a muco-purulent discharge in both eyes, photophobia, practically blind as far as useful vision is concerned. There are nodular grey cock's comb tumors, almost as large as the last joint of the little finger on the inner side of each lid. These tumors keep the lids turned out and permits



Tuberculosis of the eye



A. Giant cells.
B. Connective tissue stroma.

the profuse secretion to constantly flow over the patient's face. The lids are much thickened. The conjunctiva of the upper lid shows only the very slightest papillary growth. A sort of pannus has grown over the cornea of each eye. Differential blood count is neutrophils 43 per cent; small mononuclear leucocytes 49 per cent; large mononuclear leucocytes 3 per cent; unclassified 5 per cent. Temperature, ranging over a period of two months was between 97 and 99°. In the hope of shrinking the tumor several applications of X-ray were given by Dr. Wm. F. Jenkins. These were without any effect. The growth was then excised a second time from the lower lid of the right eye for diagnosis. Microscopic sections were prepared by Dr. Allen Bunce, of Atlanta. The following is a combination of his report and that of Dr. Feingold, of New Orleans, the ocular pathologist whose opinion was also asked.

"The specimen shows many lymphoid cell nodules, with rather numerous giant cells in the center and quite a few plasma cells at the edge of the nodules. Though there is no marked necrosis some areas could be interpreted as showing it in a mild degree.

Endothelial cells are not very numerous in the center of the nodules but eosinophiles are remarkably frequent between the nodules. The picture resembles nothing as much as it does tuberculosis of the conjunctiva."

Internist report: (Dr. J. A. Thrash, of the Columbus tuberculosis clinic). One brother died when an infant with some affection of the back. Coughs sometimes, no shortness of breath, is not aware of any loss of weight. At times moderately severe pains in chest.

Examination: Inspection negative. Palpation negative. Percussion negative.

Auscultation: Moderately coarse rales at both apices above the clavicles anteriorly and especially marked on the back opposite the third vertebra. Breathing is of a granular type.

If there is any pulmonary tuberculosis it is a very slight apical involvement. However, in view of findings elsewhere in body, patient running a slight temperature and having a rapid pulse, I would consider the rales as indicating very early pulmonary tuberculosis although subjective tubercular signs are almost entirely absent.

X-ray report: In the upper portion of

the right lung the bronchi show increased density, which though not diagnostic must be considered as suggestive and warranting further observation of the case.

Case No. 2. White female 27 years old. Recurrent ulcers on eye for $1\frac{1}{2}$ years. Vision: Counts fingers at one foot. Family History: Father died with pulmonary tuberculosis, also one brother and an uncle. One brother has a chronic cough and frequent pains in chest. Eyes show many faceted areas on cornea and many nebulae and maculae, with superficial vascularization. Small yellow pinhead ulcer at limbus. Moderate injection and thickening of conjunctiva. Marked photophobia.

Internist report: (Dr. J. A. Thrash). Patient runs a typical tubercular temperature. There are fine crepitant rales at both apices.

The etiology of phlyctenular ulcers of the eye is not such a simple matter as latent tuberculosis alone. Other elements also enter into it. We have recognized these but as yet are unable to connect them logically. Thus, diet is a very important factor especially in children and all children developing one of these troublesome ulcers should be prohibited from eating sweets or drinking coffee and tea. Practically all of these cases show a poor ability to handle sugar. In other words after giving them a set amount of glucose, the concentration of their blood sugar stays high much longer than in normal people. Negroes are especially fond of sweets and this condition occurs much more frequently in them than in white people. In the 89 cases I have tabulated 71 per cent were in negroes although the clinic in which all but my last few cases were seen was composed of only a little more than $\frac{1}{4}$ negroes.

While working in another clinic, that of Dr. de Schweinitz, I had the pleasure of seeing this phase of the matter investigated. One patient's eye flared up so quickly after giving her the test amount of glucose that it was feared for a time that the eye might be lost.

However, even if we control the diet of

these cases the process recurs. We need not think we have cured them by our local treatment for the chances are that recurrences will follow. In my cases 60 per cent gave such evidence of tuberculosis as I have mentioned above. I believe, with the majority of authorities that in recurrent phlyctenular ophthalmia the underlying cause is latent tuberculosis elsewhere in the body although these patients are almost always in excellent physical condition and it may be difficult to find absolute proof of tuberculosis.

Several cases have been reported which show how insignificant a tubercular lesion may be to cause this mild type of lesions. In these cases no evidence could be found of tuberculosis. Finally the tonsils were removed in the hope of helping the patient's general resistance. Sections of these excised tonsils showed many unsuspected tubercles, and there were no more recurrences.

I have taken phlyctenular ophthalmia as representative of the latent type as contrasted to the bacillary or active type which is less seldom seen. Ocular changes less consistently due to small amounts of tubercular toxins are scleritis, episcleritis and very infrequently interstitial keratitis. Tuberculosis in the eye is divided into two types, an active type with tubercle bacilli present and a passive type without typical tubercular pathology.

Summary: Recurring pinhead ulcers at the edge of the cornea should be considered of tubercular etiology until proved otherwise. A passive, rather than an active, process is to be looked for. An attempt should be made to locate the seat of the tubercular process in the hope that if it is localized it may be controlled or removed. Grey cock's comb tumors on the inner side of the lower lids are suspicious of tuberculosis.

Note: Since reading the above paper a negative Wassermann report has been received for the man and the patient has received injections of increasing amounts of tuberculin. Improvement was prompt and marked. All congestion disappeared from the eyes and the tumor on the lower lid of

the left eye rapidly shrunk to its present residual size, where it seems stationary. Vision has improved so that the patient can walk and run about the neighborhood where as before he was confined to a chair with barely light perception. There has been no recurrence of the tumor on the lid from which it was excised and it is believed that the small residual mass on the lid of the left eye is composed of connective tissue stroma shown in the microphotograph. The most that could be expected of tuberculin therapy would be a removal of all inflammatory tissue. It could hardly be expected to have any influence upon any mass of scar tissue which might have been formed. In the future I hope to have microscopic sections of this residual mass which may be very instructive.

Further proof that the case of phlyctenular ophthalmia was tubercular was given when a slightly larger dose of tuberculin than usual produced a focal reaction in the eye.

1. C. M. Jack J. A. M. A. Nov. 4, 1922.
2. W. C. Pinnoff Arch. Ophth. March, 1923.
3. A. L. Whitehead British Journal of Ophthalmology.
4. Walter Camp Minn. Med. Journal Dec. 1922.

CONCERNING SIMPLE METHODS FOR THE DIFFERENTIATION OF CAR- DIAC ARRHYTHMIA*

Edgar D. Shanks, M. D.,
Atlanta, Ga.

During the past two decades, our knowledge of heart disease has been rapidly advanced due to the work of such men as Mackenzie, Einthoven, Thomas Lewis and others. Much of the information gathered has been due to the study and investigations with two graphic methods, namely, the polygraph and electrocardiograph. Although much of this newer knowledge is based on the results obtained by workers with these instruments of precision, the use of them is not necessary for ordinary clinical work.

I will therefore discuss some of the newer knowledge of heart disease with special ref-

erence to the clinical differentiation of cardiac arrhythmia, but before taking up the different heart irregularities I will mention a few facts in regard to the incidence of cardio-vascular diseases as compared with other diseases to show that our responsibility in the matter of these diseases is an ever increasing one. Next, I will review the cardiac physiology with special consideration of the so-called "conduction system" of the heart, because it is necessary for us to recall to our minds certain facts in regard to the mechanism which regulates the rhythmical and synchronous contraction of the cardiac chambers before we can account for certain irregularities of the heart.

Heart disease and diseases affecting the vascular system ranks high as a cause of death. Of 1,068,932 total deaths in 1917, 115,337 were due to heart diseases, 62,431 to apoplexy and 19,055 to arterial disease, against 112,821 for pneumonia, and 110,285 for tuberculosis. Cardio-vascular diseases affect all ages; we see evidence of them in early childhood and we follow them through the span of life. Every physician's office is a clinic for cardio-vascular diseases, whether he be a general practitioner or specialist, for many of his patients will solicit information in regard to their hearts and vascular systems.

Modern physiology tells us that the heart muscle possesses five definite properties: for tuberculosis. Cardio-vascular diseases against 112,821 for pneumonia, and 110,285 affect all ages; we see evidence of them in early childhood and we follow them through 1st, Stimulus production; 2nd, Excitability; 3rd, Conductivity; 4th, Contractility; 5th, Tonicity. These functions seem to be co-ordinated due to the cardiac nerves which apparently have both a direct and indirect modifying controlling function.

The stimulus which causes the heart to contract in normal rhythm arises in the sino-auricular node, situated just below the superior vena cava and within the right auricle. From there the excitation wave spreads over the auricular wall to the node of Tawara, this node being the head of a

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neuro-muscular bundle of tissue, the bundle of His, and is located in the junctional tissues between the right auricle and ventricle. The bundle of His divides into a right and left branch and these branches further divide and terminate in fine fibres which fade into the musculature of both ventricles, thus completing the pathway of conduction for a normal heart. Normally the excitation wave travels four times as fast in the ventricles, over neuro-muscular tissue, as in the auricles; for in the latter situation it is conducted by muscular tissue alone.

If any portion of the conduction mechanism fails in its co-ordinated function, either from the standpoint of time, place or intensity, arrhythmia will occur. For example, pathological changes in the wall of the auricle, the pathway of the conduction system causes a disordered auricular rate and thus the sino-auricular node is no longer the "peacemaker" of the heart.

Cardiac arrhythmias have been classified by various workers but probably the simple classification of von Tabora will meet all requirements. His division follows:

1. Arrhythmias usually associated with retained fundamental rhythm, viz., (a) Premature Contractions (sometimes called extra-systoles and dropped beats), (b) Heart Block (impaired conduction).

2. Arrhythmias resulting from causes which abolish the fundamental rhythm, or true arrhythmias. Of this group we have: (a) Sinus Arrhythmia, (b) Auricular Fibrillation.

Paroxysmal Tachycardia and Pulsus Alternans are not properly arrhythmias but represent respectively: the one, abnormal acceleration; the other rhythmic variations in the force of the contraction.

Auricular Flutter, not mentioned in the foregoing classification, must necessarily be placed under the head of Heart Block, because in the majority of cases of this comparatively rare condition we find a 2 to 1 heart block.

Cardiac arrhythmias can be recognized and interpreted by the means of ordinary clinical technic, if this be founded upon an

adequate knowledge of physiology and pathology. As a matter of fact, abnormalities of the cardiac mechanism are for the greater part reflected in the pulse and a careful study of pulse irregularities will in many instances be the deciding point in making your diagnosis. Let us now consider under individual heads the several forms of cardiac arrhythmia and attempt to apply simple methods for their differentiation.

Sinus Arrhythmia

This form of arrhythmia should be the first thought of the physician when he finds a cardiac irregularity in a child, or young adult. It is observed occasionally in older people, being more noticeable in the psychoneurotic class of patients. Inhibition of the vagus influence as a result of fear, pain, joy, et cetera, will cause a quickened heart unstable in rhythm and often responsive to and modified by, the phases of respiration. It is characteristic for this form of arrhythmia to occur during convalescence from infections. Under normal conditions, a deep inspiration tends to accelerate, a deep expiration to retard the pulse. In sinus arrhythmia, you get this condition with a normal inspiration and expiration. Usually the condition can be diagnosed by having the patient hold his breath and the irregularity will disappear. Atropine will also abate it.

Premature Contractions

Premature contractions, or extra-systoles, are produced by extra stimuli in the auricle, the bundle of His, or the ventricle; normal stimuli arising at the sino-auricular node and transmitted through the conduction system at spaced intervals, are interfered with and we have premature contractions. The premature contraction is weak and early, usually coming in early diastole; the beat following is strong and the time interval between the two is longer, so much so, that the patient may notice the irregularity and become alarmed. The weak beat of the heart may not be perceptible at the wrist. It may be diagnosed in most cases by having the patient exercise, because an increase in the heart rate as a result of exercise causes

the irregularity to decrease or disappear. The site of origin of the extra stimuli can be recognized only by graphic methods.

Auricular Fibrillation

This regular irregularity of the heart beat is due to a series of abnormal impulses from a number of irritable foci within the auricle. The auricle, instead of contracting at its usual rate in response to a normal stimulus, is virtually paralyzed by the innumerable stimuli which neutralize each other. Some of the abnormal stimuli spread to the node of Tawara and the result is haphazard ventricular contraction. The pulse varies in rate, rhythm and volume, the rate varying as much as 20 beats in a minute in some cases, depending on whether the node of Tawara or the bundle be diseased. This condition may be best demonstrated by having an assistant count the radial pulse at the wrist, while you count the apex beat with a stethoscope for one minute, both of you using the same watch. The difference in the two counts will be the pulse deficit and this together with the already noted irregular pulse and disordered ventricular activity is sufficient evidence upon which to diagnose auricular fibrillation. It is usually unwise to exercise a patient with auricular fibrillation but it is well to remember that exercise increases the fibrillation in these cases while other irregularities of the pulse decrease on exercise.

Paroxysmal Tachycardia

Its cause is an irritable focus, which is usually located in the auricle; its hosts are among the ex-rheumatic cases, cases of arterio-sclerosis and chronic thyroids. The chief characteristic of the tachycardia is that it begins and ends suddenly.

The rate is usually more than 160 per minute. Exercise, posture and atropine have no effect on the rate. Pressure on the right vagus nerve, along the carotid sheath, will abort about 50 per cent of the attacks.

Auricular Flutter

This is a condition in which an abnormal focus within the auricle causes a rapid, reg-

ular contraction of the auricle, varying in rate from 200 to 400 per minute. The ventricular rate is usually one-half the auricular rate, a 2 to 1 heart block. The rate is uninfluenced by position, exercise or vagal stimulation. In an elderly person with a ventricular rate of over 120 per minute that does not change with exercise or position, you may with safety make a diagnosis of Auricular Flutter. Digitalis in full doses will change the flutter to a fibrillation; and, when the digitalis is discontinued, the fibrillation soon vanishes.

Pulsus Alternans

This condition is due to the fact that certain muscle fibers of the heart are too exhausted to respond to each and every stimulus; the result is a pulse alternating in volume, and the alternation is regular with the result that every other pulse wave varies in height. While counting the pulse with one hand use the other hand to apply pressure on the brachial artery; this will eliminate the weak beat and the rate will be halved. A blood pressure cuff may be used for pressure on the brachial if one so desires.

Heart Block

Heart block is a blocking of the impulse at any point along the conduction system. The careless administration of digitalis is responsible for many cases of functional heart block. Rheumatic fever and diphtheria are forerunners of heart block. Syphilis is a common cause of trouble with the conductive mechanism of the heart. Arterio-sclerosis and heart block may co-exist. Heart block varies from a low grade to a high grade block, the low grade representing delayed conduction of the impulses while a high grade represents complete dissociation of the auricles and ventricles.

Heart block should be suspected when the pulse rate is fifty or less. Suggestive, also, are 3 to 5 waves in the jugular to one pulsation of the ventricle.

Conclusions: 1. "Extremes are drawn to extremes" in the diagnosis of cardiac irregularities. One may with simple meth-

ods differentiate for clinical purposes the cardiac arrhythmias; on the other hand, the use of graphic methods for their differentiation for scientific purposes is without question.

2. Early recognition of the cardiac arrhythmias together with a knowledge of their many causes makes it possible to draw important deductions for the patient.

Discussion on the Paper of Dr. E. D. Shanks

DR. J. M. ANDERSON, Columbus: Of all the diseases we know the one we have just heard about is probably the greatest bugbear to the public. There are so many people who have a horror of dying of heart disease that it is incumbent upon us to tell our intelligent patients, to say the least of it, that 90 per cent of what we are, we are in spite of ourselves on account of inheritance, and that only 10 per cent of what we are is due to our own effort. Yet the progress of the world is entirely dependent upon the little 10 per cent. Those of us who do not understand the main principles of the Mendelian law of inheritance should go back to school for a minute, for practically all children now understand the main principles of the Mendelian law, and we should explain to our patients that probably their ancestors had this difficulty before they had it and that by proper living and conforming to the simple rules of life they can prolong their days.

A doctor about forty-five years old discovered that he had serious heart disease and arteriosclerosis, and immediately changed his mode of life and lived to be sixty-nine, practically his allotted time. Practically all patients can do this. I am accustomed to making a pulse wave record, because nearly all the knowledge we get is gained through sight. When we see a thing we learn it and know it and if we make a pulse wave

record we will be able to demonstrate to these patients in an easily understandable way whether they have an irregular heart or any kind of heart disease. If they have, then all you need do is to tell them not to run upstairs or anything to put the heart under strain. Not long ago a famous writer was told by his doctor, "You are well, as well as ever and will live to be a hundred." He went home very much elated and instead of riding up in the elevator he ran upstairs—and within a week was a dead man. Explain to your patients that no man is sound after reaching adult age, that something is the matter with all of us, but that there is no use of dying before his time, of fright.

DR. E. C. THRASH, Atlanta: Cardiovascular diseases are among the most problematical with which we have to contend in medicine. In fact, I have thought more of learning how to handle these problems than of any other of the phases of my work. Cardiopathies result from endogenous and exogenous disturbances. The exogenous are from outside irritation and are usually neuric in origin; the endogenous result, first from acute infections producing toxicity and cloudy swelling of the heart muscle. This is one of the most difficult heart disturbances with which we have to deal, and where it gives us our greatest worry is probably in the treatment of pneumonias. We could spend half an hour discussing the pneumonia heart. That is the acute, toxic heart. Second, the cardiopathy of hypertension, which is the heart that is overloaded and worked down and gradually failing from overwork. Third, the cardiopathies of syphilis, which do not come within the domain of the acute type of which I speak. This is a granulomatous and toxic process of chronic nature. Fourth, the senile heart, which simulates somewhat the albuminous degeneration, only it comes on more slowly. Fifth, valvular lesions, these we worry most about, but they should be given the least

thought. Valvular lesions are prone to frighten us and frighten the patient. When we tell a patient that he has a heart murmur he goes up in the air, but this means little unless he has other things in connection with the murmur. Never call the attention of your patient to this if he has no symptoms for he may continue for a long time and never know that he is afflicted. It may be fully compensated for. Heart murmurs do not always mean faulty valves.

If I was asked by a student when he started out in medicine the drugs most important to learn I would say: Digitalis, mercury, iodine, arsenic—you need them every one in the treatment of these heart lesions. Regardless of whether it is a syphilitic or a senile heart, a cardiopathy from hypertension, these four drugs must come into your armamentarium, and if you handle them properly you will get results. I do wish to say, gentlemen, that any man who does not know digitalis should learn it, but if he does not know it he should not give it. It is one of the most dangerous drugs, if we do not know it, and one of the most helpful, if we do. No one can say that we should give digitalis in this or that kind of a heart. There is only one kind that we can give digitalis in, and that is the heart which will respond to it, and we never know which will respond until we have tried. One can say that it should not be given to the senile heart or to the heart with an acute dilatation, that we will not get results, but I will tell you that if you will test it out carefully you will get results in almost all cases. If you do not do so it is because you do not know how to give it, or your drug is not potent.

Another thing in reference to heart disease and the habit of giving large doses to men past middle age. This practice will often give good results but occasionally will cause death. We can give it this way in hospitals and get away with it, but if we give it in private work, giving a man above fifty, large doses with no one to watch results, we are in danger. Always remember to give repeated doses until you

digitalize them, and then when you get the heart going properly quit giving digitalis. If you do not you will get into trouble and wonder what is the matter, for the patient probably did fine at the outset but later his heart becomes too fast, his respirations will increase and he will be more ill than before. The reason doubtless will be that you have not given digitalis properly. You must beware of large doses in degenerated heart muscles.

If you will go home, take up your materia medica and study digitalis, remembering to give a little mercury along with it, and give it in your heart lesions in a proper manner, you will be well repaid.

DR. R. L. MILLER, Waynesboro: I thank Dr. Thrash for what he has said about digitalis. A few years ago at a meeting of the Medical Association a gentleman read a paper on digitalis, recommending large doses every three or four hours. I took occasion at that time to say that it was a most dangerous drug to use in such large doses, one of the most dangerous we have, and that I did not agree with the essayist who presented the paper. I think that Dr. Thrash is absolutely right. The enormous doses of digitalis that some men give are dangerous. If we start with small doses, gradually digitalize our patients, and then stop, as he said, it is a useful and safe drug. I know there is at least one reliable digitalis on the market, one that is safe to use and that is made by Upshur-Smith, and it is the best I know.

DR. CLEVELAND THOMPSON, Millen: I enjoyed this paper particularly because it is in keeping with the newer ideas regarding heart conditions. Mackenzie himself admits that for all practical purposes in heart disease the polygraph and electrocardiogram are not essential, so those of us who have not such instruments of precision and have not access to them can console ourselves with the thought that the fellow who has them, and who has been using them for the additional information they give him in regard to his patients, has not had as much assistance as is commonly thought.

DR. E. D. SHANKS, Atlanta (closing): I wish to thank the gentlemen for their discussion and to say that I agree quite thoroughly with all that was said. Most of us are put to the test of using something other than these instruments of precision. That happened to be the case in our clinic in Atlanta. We could not purchase an electrocardiograph and we did not even get a polygraph, so we had to devise some means of classifying these cardiopaths. Some of us are more fortunate in our office work, we are able to carry out the plan of Dr. Anderson. We can make the tracings and show the patient something about these irregularities. I agree with him that it makes a good impression on the patient and adds considerably to the information we wish to have.

I agree with Dr. Thrash in all he said about digitalis. I am thoroughly convinced that in hospital practice, especially in those that do charity work and where we have not enough interns and have lots of work to do, that we sometimes write digitalis down on the card in half dram or dram doses, or perhaps even more, and we are likely to forget that it is on the chart and that the patient is still getting it. In this way we may find that we have given too much digitalis.

One thing to remember is that we may get a tachycardia from too much digitalis. I do not think that fact is generally known, the medical students especially are not aware of it, but we may get in addition to other symptoms, such as nausea and so on, an actual tachycardia as a result of too liberal doses of digitalis. I thank you very much.

THE DIAGNOSIS OF PULMONARY TUBERCULOSIS*

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Columbus, Ga.

It has been said that tuberculosis and syphilis are the two most prevalent diseases to which man is heir. Tuberculosis gathers a toll of over 100,000 lives per year in the United States. In every part of the globe it occupies a leading position in the Statistics of Mortality. Autopsies on patients dying from other diseases and the application of the Tuberculin test reveals the fact that practically all of us before we reach old age are infected with this disease. Tuberculosis is essentially an acquired disease contracted usually during the early years of life by constant and prolonged exposure. Although most of us are infected, only two or three per cent of those infected develop the disease actively. Tuberculosis when diagnosed early is a curable disease in the sense that by proper treatment the active process can be arrested.

The cutting down of the high mortality from this disease depends to no small extent upon the ability of the general practitioner to give the patient a chance of recovery by making an early diagnosis. So much has been said about other things and so little about the symptoms in the diagnosis of tuberculosis that the average physician feeling his incompetency to detect slightly altered physical signs in the chest has come to believe that an early diagnosis is a problem for the most expert. Although other things,—physical examination, laboratory and X-ray examinations, are of the utmost importance, they are in no wise of more importance than the symptoms of the disease. The diagnosis rests upon the proper evaluation of all the data obtainable and should include the proper interpretation of symptoms, a careful physical examination, laboratory and X-ray examinations. The diagnosis requires careful and oftentimes prolonged observation. The failure of the average physician to make an early diagnosis is oftentimes due to his lack of

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appreciation of these facts. Indeed his failures are more often due to his carelessness rather than to his ignorance.

History

In taking the history of a patient we should always suspect tuberculosis when there is a history of—

(1) Hemoptysis, (2) Attacks of pleurisy, especially with effusion, (3) Ischio-rectal abscess, (4) Continuous Cough, (5) Continuous Fever, (6) Loss of weight, (7) Undue fatigue, (8) History of prolonged and continuous exposure to tuberculosis.

Hemoptysis and pleurisy should always be considered as of tuberculous origin unless proven otherwise. Proctologists have long emphasized the tuberculous nature of Ischio-rectal abscesses. A patient showing any of these symptoms should be warned of their possible nature and though showing no other signs of tuberculosis should be given the benefit of prolonged and careful observation. When a patient complains of fatigue and loss of weight and a cough which has lasted over a period of four to six weeks, we should always think of tuberculosis. A patient showing one or several of these symptoms should certainly have the benefit of a careful examination. A patient who has a continuous elevation of temperature should be carefully observed and if the temperature cannot be explained otherwise, we should strongly suspect tuberculosis. A history of prolonged exposure to tuberculosis with any of the above mentioned symptoms should make us much more on the alert. It may be conservatively stated that a careful history and observation is more important in making a diagnosis of tuberculosis than any other one thing. To those of us who are interested in tuberculosis, it is not an unusual occurrence to have a patient to come into the office for examination showing all of the classical symptoms of tuberculosis, who has been told that he or she has no evidence of the disease.

This is a typical case: A young woman, age 24, married, one child, 18 months of

age, has not been feeling well since the birth of her child. She has in the past twelve months lost twelve pounds in weight—cough slight. She feels tired and lacks energy although she is still able to attend to her household duties. When the patient was five years old her mother died with tuberculosis. Also one aunt who had lived in the house with them died with tuberculosis, one sister was, at the time of examination, bed-ridden with tuberculosis. She had been treated by several physicians for various things, among them Malaria and "Nervous Break Down." Indeed she had been assured by a physician the day before that she had absolutely no evidence of tuberculosis. At the time of examination, she had a temperature of 101, pulse 120, the physical signs of advanced tuberculosis and bacilli in the sputum.

This case could have been diagnosed positively without even examining the chest and the only explanation for the failure, on the part of others, who had seen this case, to make a diagnosis is "Carelessness." A physician may be excusable for not being able to elicit rales in the chest but he certainly is not excusable for failure to give careful consideration to the classical symptoms of the disease. Even those who are most proficient in the interpretation of physical signs in the chest cannot make a diagnosis unless symptoms of the disease are present and it is not bad judgment to make a diagnosis in some instances on symptoms alone.

Physical Examination

The patient should be stripped to the waist. Unless the patient is so stripped any examination is useless.

Text books say a great deal about inspection, palpation and percussion. Inspection and palpation though having their place in pulmonary disease, such as pneumonia, where massive changes have taken place are of little value in early pulmonary tuberculosis. The changes in the percussion, notes in early cases, are so slight that we personally do not get much out of it. The

changes which we hear through the stethoscope are by far the most reliable. Most writers lay much stress on all the methods of examination, inspection, palpation, percussion and auscultation, yet, none of them, I dare say, would attempt the actual examination of a patient without a stethoscope. Rales heard at the apices is usually the first physical sign of pulmonary tuberculosis. It is an accepted theory that rales are produced by the sudden pulling apart of the exudate coated surfaces of the collapsed air vesicles during inspiration. In early pulmonary tuberculosis rales are best elicited by having the patient cough at the end of expiration. The expiratory cough gets rid of all residual air in the lungs and insures a thorough collapse of all the air vesicles and consequently approximation of their walls. Inflation of the collapsed vesicles during expiration brings out the rales. The rale of tuberculosis is best described as being moderately coarse. It occurs during expiration. It is not of the fine crepitant type so often described as sounding like the rubbing together of hair as we hear in pneumonia. The failure to hear rales is usually due to the fact that we are careless in our technic of producing them. Anyone keeping in mind the idea that rales are produced by the separation of the walls of the air vesicles during inspiration should have no trouble in hearing them and recognizing them when they are present. The idea that one must have a trained ear for rales is largely a mistaken one. Perhaps the most important thing to remember in the physical examination is that the physical signs in early pulmonary tuberculosis are slight, that the hearing of rales is the most important physical sign and that where massive changes have taken place in the lungs they should be considered as non-tuberculous until proven otherwise. It is also a safe rule to regard all changes at the apices as tuberculous and all changes at the bases as non-tuberculous until proven otherwise.

Laboratory Examination

The only absolutely positive proof of

tuberculosis is the presence of tubercle bacilli in the sputum and yet, how often is this diagnostic aid overlooked. A positive sputum examination means everything. A negative examination means nothing. A positive examination should be checked up. A negative one should be done over and over again. It is no unusual thing to see a physician have one specimen of sputum examined, get a negative report and dismiss from his mind the possibility that the patient may still have tuberculosis. We serve fifty or sixty physicians in the Columbus Health Department Laboratory and it is a rare thing for any of these physicians to have more than one sputum examination on their patients.

X-ray Examination

The value of the X-ray in the diagnosis of tuberculosis is not to be disputed. A Parenchymatous X-ray lesion is of the same diagnostic importance as rales. Indeed there are certain cases of tuberculosis where the process begins deep within the lung which show changes in the X-ray plate before the changes can be detected by physical examination. A negative X-ray report, however, in the presence of other evidence should not influence the diagnosis. Neither should a positive X-ray report cause us to make a positive diagnosis in the absence of other evidence.

Conclusion

In conclusion, I would like to say that if the physician will always be on the alert for tuberculosis, if he will give suspicious symptoms of the disease their proper recognition and carefully observe the patient rather than carelessly explain the symptoms as being due to malaria, nervous break down, or, what not, if he will bring to his aid the laboratory and when possible the X-ray, if he will study all the accumulated data collectively and intelligently, in the vast majority of instances, he will be able to justify his patient's confidence by giving him the benefits of an early diagnosis.

ACUTE PANCREATITIS FOLLOWING GESTATION*

With Report of a Case

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Acute pancreatitis is an especially rare disease. In the study of it one is at once struck with the paucity on this subject in the literature. This is true of pancreatitis from all causes. This being true, acute pancreatitis following gestation would be much more rare. G. L. Moench, writing in the *Journal of the A. M. A.* for the number of February 2nd, 1924, says that from January 1, 1918, to August 31, 1923, the office of the medical examiner of the city of New York did about 9500 necropsies. Among all of these only 21 were due to acute pancreatitis. In one instance a three months pregnancy and a status lymphaticus were found. He also says that Draper found acute pancreatitis nineteen times in 4,000 necropsies, in nine or ten of which acute pancreatitis was the only assignable cause of death. Osler, on page 594, Eighth Edition, *Osler's Practice of Medicine*, says that Peiser found eight cases, in a series of 121 cases of acute pancreatitis, associated with parturition.

I have sought for reports of cases from all the available literature in the preparation of this paper, and sent the following questionnaire to the professors of obstetrics of the leading medical colleges throughout the country:

1. Have you seen one or more cases of this kind?

2. Can you cite me to literature bearing on this subject?

3. How many reported cases have you seen in the literature?

The men into whose hands this questionnaire fell have been very kind indeed in making replies. I mailed twelve questionnaires and had replies from ten.

Dr. Joseph B. DeLee says: "I never saw a case in gestation, but have had several

cases in the puerperium where symptoms resembling very acute gall stone attacks, reminded me of acute pancreatitis. Regret that I cannot cite you to any literature bearing on the subject."

Dr. F. S. Newell, of Boston, Mass., has never seen a case, neither could refer me to any literature on the subject.

Dr. C. Jeff Miller, of New Orleans, has had no personal experience, and could not cite me to any literature on the subject.

Dr. Jennings C. Litzenberg, of the University of Minnesota, says: "I have never seen a case, at least have never made such a diagnosis."

Dr. James R. McCord, of Atlanta, says: "I have never seen a case, in fact I know nothing about it."

Dr. Edward Speidel, of Louisville, Ky., answers "no," to all the questions.

Dr. Edward P. Davis, of Philadelphia, Pa., says: "Unquestionably there must be such cases. They have been reported under the name of toxemia of pregnancy, and there are two interesting recent reports; one the description of a case of aneurism of the arteris lienalis which supplies the pancreas; the other report in a recent issue of the *Journal of the A. M. A.* of cases of pernicious vomiting in pregnancy, treated by glucose and insulin."

Dr. N. Sproat Heaney, of Chicago, Ill., says: "I have never seen a case of acute pancreatitis, having any relationship to gestation, either during pregnancy, or during the puerperium."

In answer to my questionnaire the *Journal of the A. M. A.* in looking up the subject, has found for me two German cases reported, one by P. Klumper, and the other by N. Ellibroek. So in all, this makes a total of eleven cases reported in the literature to date, connected with gestation.

ETIOLOGY. Alcoholism, infections extending from the gall bladder, or ducts, and certain poisons; and Formon says in the female, pregnancy is the usual cause. Large, thick, fat people are the ones who usually suffer with this disease.

*Read before the Augusta (1924) meeting of the Medical Association of Georgia.

SYMPTOMS. The onset is very sudden, the patient being seized with terrific pain in the upper abdomen; the face is pale and pinched; the skin is cold, bathed in perspiration; the abdomen is sore and tender; the pulse is weak and thready, and the temperature is at first subnormal. Dieulafoy very aptly terms this the pancreatic drama. I know of no other name that would describe it better, unless it were called the pancreatic tragedy. I have seen two cases: The first a young man brought into the hospital by the late Doctor Tom Wright, in 1908, during my intern days at the City Hospital of this city, with a diagnosis of acute hemorrhagic pancreatitis. The patient was immediately operated on, the pancreas was found to be gangrenous, the patient dying very promptly after being returned to the room. The other is a case following pregnancy, to be presently reported.

COURSE: After the first few hours the pulse becomes stronger and fuller, but remains very rapid, patient reacts somewhat, has a rise of temperature, usually 101 or 102, with increased soreness and rigidity in the abdomen, with no abatement of any of the symptoms except where pain is controlled by morphine; most of the cases dying in the first few days.

DIAGNOSIS: One is at once struck by the very acute illness of the patient. Indeed I think there is nothing that will make the patient look so violently ill. It has to be differentiated from perforation of an ulcer in the alimentary tract, or from a rupture in the biliary tract, and acute poisoning.

TREATMENT: The treatment is surgical.

Report of a Case

Mrs. M. J. NeS, age 23, weight 180 lbs., height 5 feet 4 inches, married; father living, 73 years old, and has a diagnosis of cancer of the lung, mother died at age of 52 following operation for gall stones, one

brother living, in good health; was delivered of an eight-pound girl baby at 10:30 P. M., February 22, 1923. The gestation and labor had been entirely uneventful; she had had no trouble from start; and was taken in labor February 21, late in the afternoon, and was delivered a little over 24 hours later; the second stage of labor lasting for about four hours. There was not any unusual shock, nor loss of blood, but a laceration of the second degree. An anesthetic was administered and stitches placed, which healed very nicely. The puerperium was absolutely uneventful; she was out of bed at the end of two weeks, and up on her feet by the end of three weeks. On the night of March 14, the 21st day after delivery, the patient stooped to lift the baby out of the carriage, when she was suddenly seized with a very acute pain, which she described as a "choking pain," attended with fullness in the stomach, and belching. This pain was ascribed to "indigestion" and the stomach was washed out by the drinking of large quantities of warm salt water, but the pain persisted, which required a second hypodermic of morphine. She stayed in bed for two or three days, with some soreness in the pit of her stomach; appetite and digestion being somewhat impaired. After this she had several attacks of supposed indigestion, occurring every few days, some of which she was able to relieve by washing out her stomach herself, and others it was necessary to call in the doctor. This went on intermittently for a month or six weeks, when she was finally sent to a prominent diagnostician for a diagnosis. She came back home with prescriptions for hyperacidity, and said that the doctor told her to forget it. She did better for awhile, but finally on May 19 she was seized very suddenly with a very severe pain in her upper abdomen. I was called, and found her suffering excruciatingly; face was pale and pinched; skin was cold and clammy; pulse was 80 to the minute, but weak; temperature was subnormal. Her stomach was washed out as on previous occasions, but pain continued very severe in spite of mor-

phine, inhalation of chloroform, and application of hot water bags. By nine o'clock at night her circulation was 130, her temperature was 100, the upper abdomen was very sore and distended, and the patient presented the appearance of a very sick woman. A probable diagnosis of acute pancreatitis was made, and consultation asked for. One of my colleagues was called in, and agreed that the patient was very sick, but did not think much of the diagnosis. The next day consultation was had with a man from another city, and diagnosis still not concurred in, it being the opinion of these men that it was either appendicitis or gall bladder trouble. The patient was, however, still very sick, circulation around 140, considerable cyanosis, abdomen more tender and swollen, temperature 102.

The patient remained about the same for two or three days, when she gradually began to show some slight improvement. About three or four days later it appeared that the trouble was going to localize in the right lower quadrant, but it did not, localizing instead in the right upper quadrant. Two or three days later there appeared a mass in the region of the gall bladder, which appeared very much like a distended gall bladder, and the patient's condition had improved to where it was thought that an operation might be safely undertaken. A prominent surgeon was called to operate, diagnosis being a probable gall bladder case. After the incision through all the tissues except the peritoneum a tumor mass could be made out of about the size and shape of an ordinary electric light globe. We felt sure then that we had a distended gall bladder. The peritoneal coat was opened; the peritoneal covering of the omentum, mesentery and of abdominal walls was covered with splotches of fatty necrosis, pathognomonic of acute pancreatitis. The gall bladder was exposed and found to be absolutely normal in every respect, but the head of the pancreas was pressing up against the liver and gall bladder, occupying the place which a distended gall bladder would have

occupied, the whole organ being very much swollen, and presented a strikingly mottled appearance. A diagnosis of cancer of the pancreas, or a chronic pancreatitis, was made; a badly diseased appendix removed. (There had been a well defined attack of acute appendicitis three months before conception, operation advised and declined.) The abdomen was closed without drainage, and patient put to bed in good condition, but with a bad prognosis. The family was told that it was a cancer of the pancreas, and the outlook, of course, bad.

The post-operative period was absolutely uneventful, the patient made a rapid and complete recovery, and was carried home on the eleventh day. I never saw a prettier recovery following an operation, and for several weeks afterwards there was absolutely no pain, or any discomfort of any kind. The patient ate well, slept well, felt well, and in fact was well, and I came to the conclusion that we were mistaken about the condition being cancerous, but that it was acute pancreatitis, and concluded that it would go on to complete resolution. But on August 10th, two months and twenty-one days after the operation, the patient was seized with violent pain, requiring the administration of morphine, which attack was followed by two or three days illness; nausea, vomiting and tenderness in the abdomen. After a vomiting spell, about three days later, the nurse recovered from the vomitus six or eight small brown stones. The patient was relieved, and went on with comfort until September 9th, when she was seized with a similar attack. This attack lasted for a day or two, when she again vomited six or eight stones, which were larger than the first ones. Since recovering from this attack she has been absolutely well in every particular.

My conclusion was that during the time of the acute inflammatory process the ducts of the pancreas were occluded, and that the contents became inspissated; and that during this period from May 19th until August 9th there was practically no secretion from

the pancreas into the alimentary tract, and that during this time these stones, or pancreoliths, formed, and that they were expelled on the dates of these attacks, thus producing the colic accompanying the attack; and that the ducts in all probability were completely emptied, since which time, from all clinical aspects, the gland has been functioning properly.

Since recovering from these attacks the patient has been absolutely well in every particular. She now weighs 193 pounds, a perfect picture of health, and says she never felt better in her life. A specimen of urine shows normality.

CONCLUSIONS: That this is a case associated with gestation is borne out by the following:

First, most cases occurring in females are associated with pregnancy.

Second, its occurring three weeks following labor.

The argument against it is Rosenow's theory of selective location following infection of the appendix. This patient had an acute attack of appendicitis about three months before conception. It was a clear-cut case, operation was recommended and insisted upon, but declined, and the removal of a diseased appendix at the time of operation might have some bearing on this case.

DISCUSSION ON THE PAPER OF DR. L. A. BAKER

DR. FRANK K. BOLAND, Atlanta: I had the opportunity of seeing this case with Dr. Baker. It was very interesting and instructive and I am glad he reported it to us. There is an old saying in medicine that we do not find anything unless we look for it, and we do not look for it unless we suspect it. This case illustrates this point very well. We had thought it was cholecystitis. It seemed to be from the history and from the examination of the patient. This mass apparently was the gall bladder. The history of the acute attack with nausea,

belching of large quantities of gas and so on, would lead us to suspect a gall bladder condition. Acute pancreatitis, fortunately, is rare, but no doubt we will all see a few cases in a lifetime of practice. Many of these cases go unrecognized. I do not doubt but that many cases are diagnosed as acute indigestion and cause the rapid death of the patient.

The treatment of this condition is considered by most authorities to be drainage of the gall bladder and common duct, which is the only way we can safely drain the pancreatic duct. This was not done in this case, as Dr. Baker stated, for after examining the pancreas it was so hard and so plastered against the posterior abdominal wall that we thought it was most likely carcinoma. The gall bladder was absolutely normal both to touch and to inspection, and apparently there was no need for drainage. An appendectomy only was done.

I congratulate Dr. Baker upon the successful outcome of the case. The stones he removed seemed to be pancreatic.

DR. CHARLES USHER, Savannah: I believe this is a rare disease. I looked over the literature of pancreatitis several years ago and got some of the points regarding it. It seems that pancreatitis is divided into two classes, hemorrhage and infection, and it is not decided which occurs first, whether hemorrhage occurs first and then infection, or infection first and then hemorrhage. The diagnosis is rarely made pre-operatively and the condition is generally thought to be something else.

There is one thing that was not mentioned in regard to this condition. Sometimes when a person drops dead there are many things he might die of and pancreatitis is one of them. He might drop dead from malarial fever, but we very seldom see pancreatitis listed as a cause of sudden death. Another diagnosis is made, usually apoplexy. I saw one case where everything looked like an intestinal obstruction but the patient had pancreatitis. In the differential diagnosis, it has been my experience that we generally have a high leuko-

cyte count, and in differentiating between perforation of the intestines, the duodenum or the stomach. as a rule I think the liver dullness would be gone. Differentiating from duodenal ulcer I think would not be hard, for the abdomen then never lets up. It becomes rigid like a board and remains that way, and I think this is not true in pancreatitis.

The general consensus of opinion, I found on looking up the subject, is that it is a rare condition and a diagnosis is very seldom made pre-operatively.

DR. L. A. BAKER, Tifton (closing): I have nothing to add except a word on diagnosis. When you are called to a patient who is about the sickest you ever saw, in extreme pain and extreme shock, with intense pain in the upper abdomen and not much rigidity, without any special localization, think of pancreatitis as the most probable thing.

As to rigidity, you would not find that in pancreatitis as in perforation of the stomach or duodenum in a case of ulcer. The rigidity is a late thing. That is why so little is written or known about the pancreas. It is so deeply situated in the body that it is very difficult to examine during life. It cannot be successfully palpated because it is so inaccessible. I have never seen anything—I have seen gunshot wounds, perforated abdomens and everything else that happens to a patient's abdomen, but I have never seen anything that makes the patient look so ill from the very beginning as does pancreatitis. The first thing is a sharp pain, the patient is in shock from the beginning, the pupils are dilated, the pain is excruciating, it is an acute abdomen, an upper abdomen, without much rigidity. After having seen a case or two like this the first thing that should pop into one's mind should be pancreatitis. I thank you.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to the Welfare of the Medical Profession of Georgia.

65 Forrest Ave., Atlanta, Ga.

DECEMBER, 1924

ALLEN H. BUNCE, M. D., Editor
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 T. C. THOMPSON, M. D.

Articles are accepted for publication on condition that they are contributed solely to this Journal.

Manuscripts should be typewritten, double-spaced, and the original (not the carbon copy) submitted. Used manuscript is not returned unless requested.

Communications and items of general interest to the profession are invited from all parts of the State. We especially invite county society secretaries to send us information of happenings in the county that would be of interest to the members throughout the State.

Editorial Department

THE DUTY OF THE MEDICAL PROFESSION TO THE NATION

At the time of the world war Switzerland with a population of about 3,000,000, numbered in its reserve corps ten per cent of the population. These reserves were so well organized that it was possible to mobilize the entire body within three days. It is now a well known fact that the first plan of Germany was to invade France through Switzerland. When it was found, however, that this little nation had mobilized its 300,000 reserves on the frontier within seventy-two hours, the Germans decided it would be better to attempt to reach France through Belgium, which country did not have its reserves so well organized.

This bit of history affords a valuable object lesson to all nations. The regular army of any country is a small affair compared to its reserves. It is the reserves which at last must be depended upon to protect home and fireside.

One of the most important departments of any military organization is its medical force. In modern warfare no army can expect to achieve victory without an effi-

cient medical corps. It might be said that no army is stronger than its medical corps.

At the present time it is the sacred duty of the medical profession of Georgia, as of every other state, to render every possible aid to the War Department in organizing a reserve such as protected gallant Switzerland, in 1914. To join the reserve corps does not mean that a physician will be called upon at any time to assist in quelling a riot or administering to the victims of an earthquake. In accepting a commission in the reserve the physician only agrees to answer a call when it is convenient for him to do so. Of course if another great war develops, such convenience would be disregarded, as it was by those doctors who enlisted in the World War.

If one joins the Reserve Corps, however, he should take advantage of every opportunity to inform himself of the workings of the Medical Department. Such opportunities will be given in the shape of lectures at various centers, correspondence courses and actual experience at camp. A few weeks camp life during the summer should be welcomed by most medical men as a chance for recreation.

The Organized Medical Reserves had practically no training before the last War, the result being that intensive courses of training had to be given under severe handicaps after war was declared. This must never occur again. Such a body of men as compose the physicians and surgeons of Georgia, and of the United States, should consider it a reflection upon their great profession not to be prepared to keep the army physically fit, and take care of wounded and sick soldiers at the very first call.

The civilian medical organizations are powerless to aid in this matter. It is a thing for each individual to decide for himself. Certainly no patriotic disciple of Hippocrates can ignore such an appeal.

At the last meeting of the Medical Association of Georgia, in Augusta, the newly elected President was instructed to appoint a Committee on National Defense, consisting of one Medical Reserve Officer from each

District, to urge the members of the Association to accept commissions in the Reserve Corps. President Elrod has appointed the following committee:

First District—Dr. R. E. Graham, Savannah.

Second District—Dr. H. M. Moore, Thomasville.

Third District—Dr. Job C. Patterson, Cuthbert.

Fourth District—Dr. W. F. Jenkins, Columbus.

Fifth District—Dr. Frank K. Boland, Atlanta, Chairman.

Sixth District—Dr. Linwood M. Gable, Griffin.

Seventh District—Dr. Chas. V. Wood, Cedartown.

Eighth District—Dr. Eugene F. Griffith, Eatonton.

Ninth District—Dr. John K. Burns, Gainesville.

Tenth District—Dr. Francis X. Mulherin, Augusta.

Eleventh District—Dr. G. T. Crozier, Valdosta.

Twelfth District—Has not a Medical Reserve Officer.

These committeemen are beginning plans to carry on a vigorous campaign in each District to increase the number of Medical Reserve Officers in the State. At the present time the number is less than 150. According to the table of the War Department, in order to complete full reserve strength Georgia should have at least 500 officers in her Medical Reserve Corps. If your committeeman fails to reach you, communicate with him and he will send you the necessary papers for your enlistment.

Georgia is one of the most American states in the Union. Only two or three states have a smaller percentage of foreign born population. Such a status as this should furnish additional inspiration for our medical men to heed this urgent call to duty.

BOLAND.

RADIO TALKS

Given over the Atlanta Journal Broadcasting Station—

Every Wednesday evening at 5:45, the medical staff of the Central Y. M. C. A. will give a five minute talk on some health subject.

This staff is composed of ten practicing physicians and six dentists. All will take part in rotation, and each doctor will make his talk interesting and valuable, avoiding all technical terms, so that every listener will catch the message.

The following is the outline of the program:

First—The child from the time of birth until it enters school. The so-called pre-school age, 1 to 6 years. The subjects of food, feeding, exercise, rest, clothing, fresh air and sunshine, bathing, the first teeth and their care will be discussed by two physicians and one dentist in five talks.

Second—The child through the six grades of grammar school and the three grades of Junior High. Known as the school age. 6 to 15 years. Six talks will be devoted to this most important period of child life. The change a child undergoes by the necessary different environments will be discussed. The avoidance of the so-called children's diseases at this age by strict adherence to precautionary measures by the parents and school authorities.

The need of compulsory play and systematic exercise in the open, to counteract the confinement in the school room, school lunches, proper clothing, the teeth and their care at this age, the danger of athletic competition without proper preparation, all of these and many other points of interest will be entered into by two physicians and one dentist.

Third—The High School and College Age. 15 to 22 years. The undergoing of important physical changes during this period, from girlhood to womanhood and from boyhood to manhood. The many temptations to which the body and mind are subject, and the vigilant supervision by parents and

school authorities of the home and dormitory environments.

The need of frequent and thorough physical examinations at this period will be stressed, especially if the girl or boy is athletically inclined.

Fourth—Occupational diseases and their prevention will be covered in six talks. Two physicians and one dentist will divide this big subject and will try to touch upon all the dangers that accompany the various occupations such as the work in the office, the factory, the various kinds of shops, the store, the farmer and many others.

The necessary precautionary measures in order to maintain good health will be outlined.

Fifth—Old age deferred. This will be a resume of all the preceding stages, telling that by living a sane life during the periods of pre-school age, school age, high school and college age, during the years of toil and labor a happy old age free from disease will be inevitable.

TOEPEL.

THE GORGAS MEMORIAL

During the past year, throughout the United States, the work of organizing the Gorgas Memorial State Governing Committees has been progressing. In some states the response has been most enthusiastic, while in others considerable effort has been necessary to bring home to the doctors, the importance of this movement to them, individually and collectively. Inasmuch as the Gorgas Memorial is primarily a medical movement and as such must have the united support of the profession if it is to make the proper impression on the general public, we take this occasion to outline briefly the Gorgas plan and to request the co-operation of our colleagues in bringing to a successful issue, this national health program.

We are planning to establish a Memorial for our former chief, Major General William Crawford Gorgas, not of marble or bronze, but a permanent living organization in the form of a great health foundation typical of his work in research and curative

medicine, that will unite laymen and doctors in an intelligent effort to obtain better personal health—a health guild that will be supported and directed by the representatives of curative medicine.

The Gorgas Memorial consists of two phases:

1. An Institute in Panama for research in tropical diseases.
2. A health educational program in the United States and other countries that wish to co-operate and participate in the movement.

We are living in an age when people are knocking at all doors of knowledge and demanding that they be admitted. In the field of medicine who are so well fitted to meet this demand as those actually engaged in the practice of medicine? The doctors have a far more interesting and important message to deliver than any other group.

In the United States today there is scarcely a community that has not its quota of irregular "medical practitioners," so called. In many states there are strong organizations of the representatives of the various cults, whose theories are imposed upon an uninformed public. Public ignorance is encouraged by professional reticence and the result is the astounding growth of unscientific methods. If the profession is to maintain the high standing to which centuries of labor in behalf of suffering mankind entitles it, it is essential that a definite organized effort be made to familiarize the public with such facts as will impress upon it the importance of medicine's contributions to human welfare. A constant fund of proper health information through the newspapers, magazines, lectures, moving pictures and the radio, furnished by medical men and women of known reputation and standing, will direct the public to the proper source for medical advice and gradually eliminate the irregular practices constantly increasing.

One of the objects of the Gorgas Memorial is to furnish a channel through which this kind of information may be disseminated. It cannot be done by individual physicians. It must be conducted by a dignified, ethical

organization, controlled by the medical profession. The name of Gorgas is synonymous with "better health." No more appropriate name could be adopted for a movement that has for its object, the development of co-operation between the public and scientific medicine for the purpose of improving health conditions by implanting the idea in the mind of every individual that scientific medicine is the real authority in all health matters and as such should be recognized as the source of health instruction.

Before we ask the public for financial and moral support, it is essential that the doctors of the country unite in support of this program. As a means to this end, Governing Committees are now in process of organization, on the basis of 100 members to every 1,000,000 population in each state. 75 per cent of the personnel of each Committee will consist of medical men and 25 per cent of influential laymen and women. The permanent activities of the organization will be supervised by these Committees in their respective states, in co-operation with the National Executive Committees.

An organization cannot operate without funds. We are endeavoring to raise an Endowment of \$5,000,000, the interest only of which will be utilized to carry on the work. The principal will be invested in trust securities and remain intact. None of the money thus obtained will be spent for buildings or equipment. The Republic of Panama has donated the site and guaranteed the initial buildings and equipment for the tropical research laboratories, in recognition of Gorgas' great work in Panama. Those invited to serve as Founder members of the State Governing Committees are requested, as they accept membership on the Committee to subscribe \$100 to the Endowment Fund, payable within two years. Every individual on the State Committee is a contributing member. When the medical nucleus of the organization is complete, a general appeal for funds will be made to the public.

The American Medical Association at its

recent meeting in Chicago, passed the following resolution:

"RESOLVED, That the House of Delegates of the American Medical Association, convinced of the great promise which the Gorgas Memorial contains of benefit to humanity through improved knowledge of preventive medicine and tropical disease, and of its peculiar adequacy, as a tribute to our great leader and sanitarian, recommend to the organized profession of the country, through its constituent state and county societies, the enthusiastic support of the project."

J. A. WITHERSPOON, Tennessee;
JOSEPH RILUS EASTMAN, Indiana;
THOMAS CULLEN, Maryland;
W. H. MAYER, Pennsylvania;
F. B. LUND, Massachusetts.

The Memorial has also been endorsed by numerous other medical and civic organizations.

Every doctor is requested to take a personal interest in the Gorgas program and to see that his community is adequately represented on the State Governing Committee. Each County Society should appoint officially at least one of its members to serve on the State Committee. This is one foundation that is controlled by the practitioners of curative medicine and as such should be supported by every practicing physician. Let us pull together, "the doctor for the doctor."

Frank Billings, Gilbert Fitzpatrick, Seale Harris, W. H. G. Logan, Samuel J. Mixter, G. H. de Schweinitz, Rear Admiral E. R. Stitt, George Crile, William D. Haggard, Franklin Martin, William J. Mayo, Stuart McGuire, Ernst A. Sommer, Ray Lyman Wilbur, Surgeon General Hugh S. Cumming, Major General Merritte W. Ireland, C. Jeff Miller, Brigadier General Robert E. Noble, George David Stewart, Hugh Young.

Medical Members, Board of Directors,
Gorgas Memorial Institute,
Executive Offices: Chicago, Ill.

Officers and lay members, Board of Directors:

President Calvin Coolidge, Honorary President; Franklin Martin, Vice President; George M. Reynolds, Treasurer; W. J. Sennett, Assistant Treasurer; Silas Strawn, Attorney; Honorable R. J. Alfaro, Brigadier General Charles G. Dawes, Bernard Baruch, Tyson Dines, Samuel Gompers, W. P. G. Harding, Judge John Bassett Moore, Adolph S. Ochs, President Beliasario Porras, Panama; Leo S. Rowe, Fred W. Upham.

Communications

A MESSAGE FROM TORONTO, CANADA

The Secretary:

I am taking the liberty of asking you for some information, and, for the purpose, enclose a sheet for reply.

Your Society may be performing a service to your members which the medical world outside may not know about. By finding out what others are doing, it is often possible to increase our own usefulness.

For your information, I may say that there are something over 3,000 doctors in the Province of Ontario, over 2,000 of these being members of our Provincial Association. Our annual fee is \$10.00, which does not include a Journal. Possibly the greatest piece of service we have been able to render our members is the carrying of post-graduate instruction to their doors. During the past three years, we have sent out over 700 speakers to our forty-five County Societies. Herewith enclosed, you will please find a reprint dealing with this work.

Thanking you in anticipation of such information as you may see fit to give me, I am,

Yours fraternally,

T. C. ROUTLEY, Secretary.

October 24, 1924.

The Editor:

I am in receipt of a letter, a quotation from which along with a quotation from my reply may be of interest to the Medical Profession of Georgia.

Dr. W. W. G. writes to this Bureau as follows: "A. E. was a ward case. He had an ununited fracture of the left femur of about six weeks duration. He was operated under ether anaesthesia. He never rallied completely from the anaesthetic, and died in about 10 or 12 hours. He took the anaesthesia very poorly and I believe this may have been the cause of his death, as well as the shock from the operation." In reply to this statement I wrote him the following: "With reference to A. E. I would appreciate some information as to the cause of the fracture of the femur for this reason, there would have been no shock had no operation been done, there would have been no ununited fracture necessitating the operation had no fracture occurred. There would have been no fracture had there been no external violence and so in the classification of this death, if you will tell me what external violence occurred, I can then classify it properly." For, according to the international list of deaths this death will be classified as due to external violence, either suicide, homicide or accident, with the manner or means used, rather than to the other causes, shock or operation.

Yours truly,

W. A. DAVIS, M. D., Director,
State Board of Health,
Bureau of Vital Statistics.

October 23, 1924.

WISCONSIN'S RECORD

"What happened to Wisconsin's membership when your dues were increased over one hundred per cent?"

"This is the question asked this month by an officer of a neighboring state society where the dues have just been increased from \$5.00 to \$10.00 for the employment of a full time secretary and to permit an increased program of activity. The answer will be of interest to every member of our Society.

"On December 31st, 1922, when the dues were \$4.00, the membership was 1,910. On December 31st, 1923, the year the dues were raised from \$4.00 to \$9.00, the membership

dropped to 1,882, a loss of twenty-eight.

"On October 30th, 1924, our membership stood at 1,919, a new record, and many applications are still pending. At the same time the current year has seen a new record established for the prompt payment of dues.

"The reason, for there is a reason, is the united effort of the officers and members to

put across a dynamic program of high purpose. As its accomplishments increase so will there be an increase in the benefits to each individual member. In short, an effort is being made to give each member more than his money's worth."—The Wisconsin Medical Journal.

District and County Societies

The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific

papers and discussions which the society shall consider worthy of publication.—Constitution and By-Laws, Chap. VII, Sec. 15.

1. Demmond, E. Carson, Savannah.
2. Wood, A. W., Albany.
3. Greer, Chas. A., Oglethorpe.
4. Blackmar, Francis B., Columbus.
5. Clay, Grady E., Atlanta.
6. Hawkins, T. I., Griffin.

7. McCord, M. M., Rome.
8. Carter, D. M., Madison.
9. Bennett, J. C., Jefferson.
10. Lee, F. Lansing, Augusta.
11. Simmons, J. W., Brunswick.
12. Cheek, O. H., Dublin.

Third District Medical Society

The thirty-fifth semi-annual session of the Third District Medical Society was held at Vienna, Wednesday, November 19, 1924. Members of the Dooly County Medical Society acted as hosts. The minutes will be published in the January issue of the Journal.

Tenth District Medical Society

The Fall meeting of the Tenth District Medical Society was held at the University Hospital, Augusta, November 12, 1924. The meeting was called to order by the President, Dr. William Rawlings, Sandersville. The Address of Welcome was given by Dr. T. D. Coleman, Augusta, a past President of the Association. Dr. T. B. King, of Sandersville, gave the Response to the Address of Welcome. The minutes of the last regular meeting were read by the Secretary. The following papers were read:

- "Diabetes," Dr. V. P. Sydenstricker, Augusta. Discussed by Dr. J. D. Gray, Augusta.
- "Some Features of Mental Diseases," Dr. R. C. Swint, Milledgeville. Discussed by Drs. P. F. Neal, Geo. L. Echols, Allen H. Bunce. Closed by Dr. Swint.
- "Relation of Syphilis to Traumatic Lesions," Dr. Hugh N. Page, Augusta. Discussed by Drs. Asbury Hull, E. A. Wilcox, W. W. Battey, Geo. L. Echols, C. W. Crane, R. C. Swint. Closed by Dr. Page.
- "A Few Points on Pediatrics," Dr. W. A.

Mulherin, Augusta. Discussed by Drs. H. P. Harrell, J. Akerman. Closed by Dr. Mulherin.

"Bronchial Spirochetosis," Dr. E. E. Murphey, Augusta. Discussed by Dr. J. D. Gray.

"An Obstetrical Subject," Dr. A. J. Kilpatrick, Augusta. Discussed by Dr. W. A. Mulherin.

"Medical Extension Work," Dr. H. W. Shaw, Augusta. Dr. Shaw talked on the organizing of the University Alumni and creating centers of medical extension work. Discussed by Drs. V. P. Sydenstricker and W. A. Mulherin.

Dr. J. O. Elrod, President of the Association, spoke on the organization of County and District Medical Societies.

The following officers were elected for 1925: President—Dr. R. C. Swint, Milledgeville. Vice-President—Dr. T. D. Coleman, Augusta.

Secretary—Dr. F. L. Lee, Augusta.

There being no further business the meeting adjourned.

WILLIAM RAWLINGS, M. D., President.
B. O. JOINER, M. D., Secretary.

Burke County Medical Society

On Tuesday evening, September 16th, a regular meeting of the Burke County Medical Society was held at Dr. John M. Byne's home, "Sun Shine Place," near Waynesboro. Our guest on this occasion were

members from Jefferson, Jenkins and Richmond County Societies.

After a most sumptuous dinner the meeting was called to order by the president, Dr. H. A. Macaulay.

The scientific program, composed of the following papers, was most interesting:

(1) Dr. J. D. Gray, Augusta, "Mobile Colon with Medical Treatment." Discussion by Drs. Miller, Revel, Cranston and Morton.

(2) Dr. W. J. Cranston, Augusta, "Pyelitis." Discussion by Drs. S. J. Lewis, Crain, Miller, Gray and Fletcher.

(3) Dr. C. Thompson, Millen, "A Report of Two Cases of Fibroid of the Uterus, with remarks on the Cause of Fibroids of the Uterus, and the Indications for Treatment." Discussion by Dr. Fletcher.

After the discussions were closed, a number of special and unusual cases were reported.

J. B. LEWIS, Secretary.

Fulton County Medical Society

Very interesting regular meetings of the Fulton County Medical Society were held at the Academy of Medicine, 32 Howard St., Atlanta, on October 16th and November 6th. Dr. W. E. Person presided at the meeting in October and there were 78 members present.

Dr. Jno. S. Derr gave two very interesting Case Reports—"Tubercular Glands of the Neck, Treated by X-ray" and "Sarcoma of the Upper Extremity of the Humerus." The discussion of these cases by Drs. Roy, Miller and Campbell was of interest to all present.

Dr. F. W. Hinkle gave a Clinical Talk on "Treatment of Gonorrhea Intravenously with Mercurochrome."

The paper of the evening was read by Dr. J. Calvin Weaver, "Experiences During the Last two Years in the Treatment of Head Injuries" and discussed by Drs. Grove, F. K. Boland, and Dowman.

In the absence of the President, Dr. Theo. Toepel, Vice-President presided at the No-

vember meeting. There were 102 members present.

Dr. E. C. Thrash demonstrated the Coolidge Water-cooled Supertube, which was of interest, and Dr. J. K. Fancher presented a specimen of "Ruptured Saccular Dissecting Aneurism of the Aorta."

Case Reports, "Ante-partum Concealed Hemorrhage" by Dr. P. L. Moon, and "Pneumococcic Meningitis" by Dr. L. H. Muse, were given.

Dr. Floyd McRae gave a Clinical Talk on "Use of Lugols' Solution in Hyperthyroidism" which was discussed by Drs. T. C. Davison and G. P. Huguley.

"Prevalence of Uterine Fibroid in the Negro Race" was the title of Dr. B. H. Wagnon's paper, and this was discussed by Drs. Denton, Shallenberger and Arch Smith.

Respectfully submitted,

GRADY E. CLAY, Secretary.

WOMAN'S AUXILIARY, FULTON COUNTY MEDICAL SOCIETY

On November 10, 1923, Dr. H. R. Donaldson, President of the Fulton County Medical Society, called together the wives of a few of Atlanta's physicians and laid before them the need of an organization of women to assist the doctors in entertaining the wives of visiting doctors, trying to create a more congenial and cordial atmosphere among the families of our local men and stressed the need of a woman's touch in the recently acquired Academy of Medicine. Dr. Grady E. Clay, Secretary of the Fulton County Medical Society, offered to mail the wife of each member of the Society an invitation to attend a meeting to be called November 20th for the purpose of forming such an organization. At this meeting Mrs. Floyd McRae, Sr., was elected President and Mrs. Frank Boland, Vice-President. It was decided we should be known as the Woman's Auxiliary to the Fulton County Medical Society. After most cordial and gracious speeches and offers of assistance by several representatives of the Medical Society, Mrs. McRae appointed a number of committees, among them the Committee to draft a Con-

stitution and By-Laws, and the meeting adjourned until November 30th. At this time the report from the above named Committee was read and adopted and plans for a New Year's Tea to celebrate the first anniversary of the acquisition of the Academy of Medicine. The Tea was a most delightful occasion. About two hundred physicians and their wives called during the evening and a spirit of good fellowship prevailed which has deepened during the subsequent months.

On February 10, 1924, a benefit bridge was given to the doctors, their wives and friends. This, too, proved a most enjoyable as well as remunerative affair, the Committee clearing \$165.00. In May we assisted in the entertainment of the National Tuberculosis Association. In June our special effort was an elaborate evening party for two hundred and fifty guests at the reunion of the Alumni of Emory University. It was a great joy to entertain these friends from all over the States and they seemed to enjoy themselves, too.

No meeting was held during the summer months but in September we came together delighted to be back and eager with plans for the future. So far we have revised our Constitution and By-Laws to meet our growing needs. One of the most important changes was incorporating a section requiring dues of two dollars a year to be used for our regular work and to pay State and National dues. One of the most happy occasions we have had was the masked ball given on October 30th, when about two hundred men and their wives were present and danced, had their fortunes told, played practical jokes and enjoyed themselves generally. Besides the social affairs mentioned during the past year we have renovated the Academy, furnishing fresh curtains, silver plates and cups for one hundred and twenty-five guests, reseeded the lawn, planted shrubs and bulbs for Spring, besides learning to know and love each other better than we could possibly have done otherwise. On the whole we and the Fulton County Medical Society feel that the Auxiliary is well worth while and are looking forward to

many good times together, the first of which will be an evening bridge at the Academy of Medicine on December 3rd.

MRS. O. H. MATTHEWS, Secretary.

NEWS ITEMS

We learned with much regret that our President, Dr. J. O. Elrod, was operated on for appendicitis November 18th. He and Dr. A. R. Rozar, of Macon, had planned to attend the meeting of the Third District Medical Association at Vienna together. After reaching Macon, Dr. Elrod was taken to the Oglethorpe Private Infirmary where the appendectomy was performed. Our latest report from Dr. Rozar informs us that he is doing nicely. The members of the Association extend to their President their deepest sympathy and sincerely wish for him the speediest of speedy recoveries.

Dr. Louis C. Rouglin announces the removal of his offices from 65 Forrest Avenue, Atlanta, to Suite 526 Hurt Bldg., Atlanta. Practice limited to eye, ear, nose and throat. Dr. Roughlin is a member of the Fulton County Medical Society and the Atlanta Ophthalmological Society.

Dr. P. M. Lewis, formerly of Bainbridge, is now located in Orlando, Florida. Dr. Lewis is being greatly missed by his numerous friends, especially the members of the Decatur-Seminole Counties Medical Society, whom he efficiently served as Secretary-Treasurer.

Dr. William Howard Hailey announces the removal of his office to 803-804 Candler Building, Atlanta. Practice limited to dermatology, radium and X-ray therapy.

Dr. O. N. Harden is being welcomed to Cornelia, where he has removed from Homer. Dr. Harden has accepted the position as Physician and Surgeon for the Tallulah Falls Railroad. He is the competent Secretary-Treasurer of the Banks County Medical Society and the members regret that he has removed into another County.

Dr. Roy J. Holmes is now practicing in Miami, Florida. Dr. Holmes was formerly from Wadley and a member of the Jefferson County Medical Society.

Dr. William Duncan Owens announces the removal of his offices from Savannah to 436 Peachtree Street, Atlanta. Practice limited to gynecology and obstetrics. Dr. Owens will change his membership from the Chatham County Medical Society to the Fulton County Medical Society.

Dr. G. F. Spearman, of Atlanta, has removed his offices from the Hurt Building to 41 Forrest Avenue. Dr. Spearman is a member of the Fulton County Medical Society.

Dr. M. B. Copeloff, formerly having offices in the Healey Building, Atlanta, is now located in the Grant Building, Atlanta. Dr. Copeloff is a member of the Fulton County Medical Society.

The Medical College of South Carolina held its Centennial November 13th and 14th. Dr. S. A. Visanska, of Atlanta, and a member of the Fulton County Medical Society, was graduated from this College in 1894.

Drs. W. A. Upchurch and S. T. Brown announce the removal of their offices to the Atlanta National Bank Building and the installation of X-ray and electro-therapy. Practice limited to genito-urinary and venereal diseases. Both Drs. Upchurch and Brown are members of the Fulton County Medical Society.

Dr. T. Luther Byrd, formerly located in Augusta and a member of the Richmond County Medical Society, is now Pathologist and Internist at the Sacred Heart Sanitarium, Milwaukee, Wisconsin.

As we go to press, we learn with regret that Dr. W. E. Wood, of Dalton and a member of the Whitfield County Medical Society, is in a critical condition. Dr. Wood

had been sick for several days when his condition became critical and he was rushed to Piedmont Hospital, Atlanta. The latest reports have been encouraging and his friends are hoping that he will soon be restored to complete health. Dr. Wood was formerly mayor of Dalton.

Dr. S. B. Liggin, of Montezuma, was operated upon for appendicitis November 1st. We are glad to announce that Dr. Liggin is getting along as well as could be expected.

Dr. and Mrs. J. H. Hendry, of Morgan, have left for New York where Dr. Hendry will take a special course in a hospital there. Dr. Hendry is a member of the Tri-County Medical Society.

Dr. H. H. McGee, Chief of Staff and Medical Director of the Savannah Hospital, Savannah, underwent a serious operation November 3rd, at the Hospital. His condition is considered very critical and we hope by the time the Journal comes off press that Dr. McGee will be well on the road to recovery. Dr. McGee is a member of the Chatham County Medical Society and represented his Society as Delegate at the 1924 meeting in Augusta.

The friends of Dr. B. T. Rucks regret to learn that he has removed from Ashland to Nashville, Tennessee. He is a member of the Franklin County Medical Society.

Dr. Fred Manget, a medical missionary to China and a brother of Dr. J. D. Manget, of Atlanta, is being welcomed back to his home in Walton after an absence of 17 years.

Dr. John A. Thurston, Jr., formerly of Thomaston, has been conferred a fellowship by the American College of Surgeons. Dr. Thurston is a graduate of the Atlanta Medical School and first practiced in Culloden. He is now Chief Surgeon of the Public Health Hospital, Kansas City.

Dr. Newdigate M. Owensby, a member of the Fulton County Medical Society is considering establishing a nursing home on Peachtree Road, Atlanta, near Oglethorpe.

Drs. O. H. Weaver, Julian C. Pate and Fred L. Webb, all members of the Bibb County Medical Society, are among the doctors from Macon who attended the Southern Medical Association meeting in New Orleans. Dr. Weaver stayed over to attend several surgical clinics in the city.

Dr. B. V. Elmore, of Rome and Floyd County Health Commissioner, has completed a medical inspection of all pupils in city and county public schools in his County.

Fulton County Medical Society members were delightfully entertained by the Woman's Auxiliary of the Fulton County Medical Society at a Hallowe'en party, October 30th, at the Academy of Medicine.

The officers and members of the Medical Department of the University of Georgia Alumni Society held a meeting November 10th, at the Hotel Richmond. Dr. J. W. Daniel, of Savannah and past President of the Association, presided. Plans were formulated for the extension of medical teaching over the State. Among those present were Drs. J. W. Daniel, W. H. Goodrich, V. P. Syndenstricker, W. A. Mulherin, E. R. Clark and G. Lombard Kelly.

Dr. Mell Aycock, of Atlanta, and serving on the Medical Staff of the Central Y. M. C. A., delivered a health message over radio November 5th. He discussed ailments common in early childhood and gave a brief summary of facts valuable to any mother.

A new clinic on proctology has been established at the Grady Hospital, Atlanta, under the auspices of the Atlanta Graduate School of Physicians and Surgeons. Dr. W.

B. Duvall, a member of the Fulton County Medical Society, was recently elected Professor of Proctology.

A Doctors' Exchange has been formed in Macon. The object of the Exchange is to assist people in locating a doctor.

The Albert Steiner Cancer Clinic, which was built with a \$500,000 bequest made by Mr. Albert Steiner, formerly of Atlanta, was turned over to the City of Atlanta November 13th. It is a three-story annex to the Grady Hospital and is one of the few and most up-to-date of its kind in America.

Armour and Company announce the addition of Parathyroid and Calcium Lactate Tablets. Each tablet contains 1/20 grain of pure Parathyroids and 2½ grains Calcium Lactate U. S. P. These tablets are packed in bottles of 100 and they are obtained from drug trade and dealers in physicians' supplies everywhere.

Scholarships on the Oliver-Rea Foundation for graduate study in medicine are available at the New York Post-Graduate Medical School and Hospital. Inquiries should be addressed to the Dean, 301 E. 20th St., New York.

The following 17 out of 29 Hospitals in Georgia were approved by the American College of Surgeons: Davis-Fischer Sanitarium, Atlanta; Georgia Baptist Hospital, Atlanta; Grady Memorial Hospital, Atlanta; Harbin Hospital, Rome; Piedmont Hospital, Atlanta; Rawlings Sanitarium, Sandersville; St. Joseph's Infirmary, Atlanta; University Hospital, Augusta; Wesley Memorial Hospital, Atlanta; Athens General Hospital, Athens; Atlantic Coast Lines Hospital, Waycross; Downey Hospital, Gainesville; Dunson Hospital, LaGrange; Scottish Rite Hospital, Decatur; Thomasville City Hospital, Thomasville; Wilhenford Hospital, Augusta; Wise Sanitarium, Plains.

OBITUARY

Dr. Wales W. Lewis, 38 years old, died November 4, 1924, at West Palm Beach. He was a former well-known Atlanta physician and the son of the late Dr. Walker Lewis. Dr. Lewis was graduated from Emory University and the Atlanta Medical College.

Dr. L. B. Lovett, after an illness for the past two or three months, died at his home in Sparks from enemic poison and complications, November 14, 1924. He was graduated from the Atlanta Medical College in 1895 and started practicing in Sparks the same year. Dr. Lovett was 51 years of age. The members of the Berrien-Cook-Lanier Counties Medical Society were honorary pall bearers. Dr. Lovett represented Cook County Medical Society as Delegate during the 1924 meeting in Augusta.

Dr. G. W. Battle, for 25 years one of the most prominent physicians in Bartow County, died November 12, 1924, at his home in Cassville, from blood poisoning. He was 58 years of age, graduated from the old Southern Medical College and a member of the Bartow County and Seventh District Medical Associations.

Dr. Reuben R. Pickett, after an illness of several months, died at his home, Ty Ty, October 27, 1924. He was one of Ty Ty's oldest and best known physicians, having practiced in his home town for nearly 20 years. He is a brother of Dr. F. B. Pickett, also of Ty Ty.

BOOKS RECEIVED

HUMAN CONSTITUTION. A Consideration of its Relationship to Disease. By George Draper, M. D., Associate in Medicine at Columbia University, New York City. Octavo of 345 pages with 208 illustrations and 105 tables. Philadelphia and London: W. B. Saunders Company. Cloth \$7.50.

**A BOOK OF IMPORTANCE IN THE
PRESCRIBING OF DIETS**

The dietetic importance of pure, plain, granulated gelatine has attracted so much attention, and the demand for more information has reached such a volume that the Laboratories of the Charles B. Knox Gelatine Company have prepared a book of dietetically correct recipes with gelatine, for Diabetes, Nephritis, High Blood Pressure, Gastritis, Gastro Intestinal Disorders, Fevers, Constipation, Obesity, and general mal-nourishment in infants and adults.

The recipes have been most carefully worked out under authoritative auspices, and with each recipe is given a quantitative analysis of Carbohydrates, fat, protein and calory value.

The book will be mailed, upon request—postpaid and free of charge—by the Charles B. Knox Gelatine Company, Johnstown, New York, to any physician or dietician who requests it.

SITUATIONS WANTED

WANTED: Salaried Appointments for Class A physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians', Member The Chicago Association of Commerce.

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Saye, E. B., Milledgeville.
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Mathews, W. L., Winder.
Randolph, W. T., Winder.
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Felton, Howard E., Cartersville.
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Howell, S. M., Cartersville.
Lowry, T., Cartersville.
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Miller, G. T., Macon.
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McAfee, L. C., Macon.
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Ross, J. T., Macon.
Rozar, A. R., Macon.
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Sigman, J. M., Macon.
Spivey, O. S., Macon.
Sprague, F. A., Macon.
Stapler, M. M., Macon.
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Thompson, O. R., Macon.
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Walker, D. D., Macon.
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Weaver, O. H., Macon.
Webb, F. L., Macon.
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Williams, W. A., Macon.
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 Busey, T. J., Tyrone.
 Camp, R. T., Fairburn.
 Camp, W. R., Fairburn.
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Goodwyn, H. J., Carrollton.
 Griffies, J. C., Carrollton.
 Griffin, Claude, Carrollton.
 Hammond, G. W., Roopville.
 Kirby, E. G., Burwell, R. I.
 Nutt, J. J., Bowdon.
 Powell, B. C., Villa Rica.
 Powell, John E., Villa Rica.
 Reese, D. S., Carrollton.
 Reeves, T. W., Carrollton.
 Roberts, O. W., Carrollton.
 Scales, S. F., R. F. D., Carrollton.
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 Spruell, T. M., Temple.
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 Hesse, H. V., Savannah.
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 Martin, H. H., Savannah.
 Martin, R. V., Savannah.
 Massoud, M. A., Pineora.
 Meldrim, C. H., Savannah.
 Morrison, A. A., Savannah.
 Morrison, J. E., Savannah.
 Myers, W. H., Savannah.
 McGee, H. H., Savannah.
 Norton, W. A., Savannah.
 Olmstead, G. T., Savannah.
 O'Neil, J. C., Savannah.
 Osborne, E. S., Savannah.
 Owens, W. D., 436 Peachtree St.,
 Atlanta.

Quattlebaum, J. K., Savannah.
 Redmond, C. G., Savannah.
 Reid, R. S., Savannah.
 Shaw, L. W., Savannah.
 Smith, W. K., Pembroke.
 Smith, W. W., Clyn.
 Tarver, H. R., Guyton.
 Thomas, M. R., Savannah.
 Tippins, H. L., Savannah.
 Train, J. K., Savannah.
 Turner, DeLamar, Savannah.
 Usher, Chas., Savannah.
 Usher, J. A., Savannah.
 Usher, Sheddie, Savannah.
 Wahl, Frederick, Savannah.
 Waring, A. J., Savannah.

Waring, T. P., Savannah.
 Waters, L. T., Savannah.
 White, G. R., Savannah.
 Williams, L. W., Savannah.
 Wilson, W. S., Savannah.

CHATTOOGA COUNTY**Officers**

President.....Wood, M. N.
 Vice-President.....Talley, R. E.
 Secy.-Treas.....Hall, F. W.
 Delegate.....Hall, F. W.

Members

Brown, H. D., Lyerly.
 Bryant, W. J., Summerville.
 Clements, J. W., Gore.
 Hair, W. B., Summerville.
 Hall, F. W., Summerville.
 Jennings, E. M., Menlo.
 Mallicoat, L. A., Trion.
 Martin, G. F., Menlo.
 Shamblin, B. F., Lyerly.
 Tally, R. E., Trion.
 Wood, M. N., Menlo.
 Wright, E. M., Summerville.

CHEROKEE COUNTY**Officers**

President.....Vansant, T. J.
 Vice-President.....Coker, G. N.
 Secy.-Treas.....Brooke, Geo. C.
 Delegate.....Coker, G. N.

Members

Bates, J. M., Canton.
 Boring, Jas. R., Canton.
 Brooke, Geo. C., Canton.
 Coker, Grady, Canton.
 Coker, N. J., Canton.
 Harbin, S. R., Canton.
 Hardin, D. A., White.
 Moore, R. M., Waleska.
 Pettit, J. T., Canton.
 Vansant, T. J., Woodstock.

CLARK COUNTY**Officers**

President.....Gerdine, Linton
 Vice-President.....Reynolds, H. I.
 Secy.-Treas.....Stewart, J. S., Jr.
 Delegate.....Decker, C. J.

Members

Applewhite, J. D., Athens.
 Birdsong, H. W., Athens.
 Bloomfield, J. C., Athens.
 Cabaniss, W. H., Athens.
 Carlton, W. A., Athens.
 Chandler, B. B., Athens.
 Colle, F. W., Winterville.
 Deaver, E. S., Lexington.
 Decker, C. J., Athens.
 Fullilove, H. M., Athens.
 Gerdine, Linton, Athens.
 Goss, R. M., Athens.
 Green, W. L., Crawford.
 Holliday, J. C., Athens.
 Holliday, P. L., Athens.
 Hunnicutt, J. A., Jr., Athens.
 Matthews, M. F., Athens.
 McKinney, J. C., Athens.
 Middlebrooks, C. O., Athens.
 Patton, A. B., Athens.
 Proctor, J. P., Athens (deceased.)
 Rayle, A. A., Athens.
 Reynolds, H. I., Athens.
 Smith, S. S., Athens.
 Stewart, J. S., Jr., Athens.
 Whitley, L. L., Crawford.

CLAYTON-FAYETTE COUNTIES**Officers**

President.....Wallis, G. W.
 Vice-President.....Cannon, T. C.
 Secy.-Treas.....Kemper, H. D.

Members

Cannon, T. C., Jonesboro.
 Chambers, J. A. S., Inman.
 Henry, J. Z., Ellenwood.
 Kemper, H. D., Jonesboro.
 Lester, J. A., Fayetteville.
 Wallis, G. W., Fayetteville.
 Wallis, J. R., Lovejoy.

COBB COUNTY**Officers**

President.....Bailey, E. M.
Vice-President.....Kemp, W. M.
Secy.-Treas.....Blair, L. L.
Delegate.....Benson, W. E.

Members

Bagley, D. A., Austell.
Bailey, E. M., Acworth.
Benson, W. E., Marietta.
Blair, L. L., Marietta.
Fowler, R. W., Marietta.
Kemp, W. M., Marietta.
Lester, J. E., Kennesaw.
Malone, J. D., Marietta.
Mims, Frank, Marietta.
Nolan, C. T., Marietta.
Pace, W. T., Smyrna.
Perkinson, W. H., Marietta.
Welsh, L. L., Marietta.

COFFEE COUNTY**Officers**

President.....Smith, J. R.
Vice-President.....Meeks, D. H.
Secy.-Treas.....Clark, T. H.
Delegate.....Clark, T. H.

Members

Clark, T. H., Douglas.
Coleman, A. S. M., Douglas.
Hall, W. L., Nicholls.
Meeks, D. H., Nicholls.
Ricketson, G. M., Broxton.
Smith, J. R., Douglas.
Whelchel, H. C., Douglas.

COLQUITT COUNTY**Officers**

Secy.-Treas.....Stuart, M. H.

Members

Folsom, G. H., Ellenton.
Harrell, C. B., Moultrie.
Slocumb, C. B., Doerun.
Stuart, H. M., Moultrie.
Summerlin, J. A., Hartsfield.
Withers, S. M., Moultrie.

COOK COUNTY**Officers**

President.....Clements, H. W.
Vice-President.....Ethridge, S. G.
Secy.-Treas.....Hutchinson, L. K.

Members

Askew, P. H., Nashville.
Branyon, C. S., Lenox.
Clements, H. W., Adel.
Ethridge, S. G., Sparks.
Hutchinson, L. R., Adel.
Lovett, L. B., Sparks.
Shepard, W. M., Adel.

COWETA COUNTY**Members**

Bailey, T. S., Newnan.
Barge, A. A., Newnan.
Barge, W. J., Newnan.
Post, W. A., Grantville.
Tribble, J. M., Senoia.

CRISP COUNTY**Officers**

President.....Williams, L. E.
Vice-President.....Smith, M. R.
Secy.-Treas.....Williams, H. J.
Delegate.....Ward, J. A.

Members

Bradley, T. E., Cordele.
Daniel, B. Cordele.
Dorminy, J. N., Cordele.
Flournoy, H. C., Warwick.
Harvard, V. O., Arabi.
Heyward, A. R., Warwick.
Marshall, W. B., Cordele.
Miller, W. A., Arabi.
McArthur, T. J., Cordele.
Smith, M. R., Cordele.
Wallace, F. R., Cordele.
Ward, J. A., Cordele.
Ware, Ford, Cordele.
Whelchel, A. J., Cordele.
Williams, H. J., Cordele.
Williams, L. E., Cordele.
Williams, P. L., Cordele.
Williams, S. F., Cordele.

DECATUR-SEMINOLE COUNTIES**Officers**

President.....Chason, Gordon
Vice-President.....Spooner, J. I.
Secy.-Treas.....Lewis, P. M.
Delegate.....Wheat, R. F.

Members

Alford, A. E. B., Bainbridge.
Chason, Gordon, Bainbridge.
Chason, Thos. Donaldsonville.
Christiphine, S. A. V., Attapulugus.
Johnston, J. A., Bainbridge.
Lewis, P. M., Orlando, Fla.
Spooner, J. I., Donaldsonville.
Wheat, R. F., Bainbridge.
Wilkinson, W. L., Bainbridge.
Willis, L. W., Bainbridge.

DEKALB COUNTY**Officers**

President.....Pattillo, C. E.
Vice-President.....Sweet, Mary F.
Secy.-Treas.....Pitman, J. F.
Delegate.....Ansley, Wiley S.

Members

Allgood, C. L., Scottdale.
Andrews, W. W., Tucker.
Ansley, W. S., Decatur.
Daniel, J. C., Decatur.
Harrison, W. M., Decatur.
Lawrence, C. E., Atlanta.
Letson, F. H., Decatur.
Owens, W. H., Decatur.
Pattillo, C. E., Decatur.
Pitman, J. F., Decatur.
Pounds, J. E., Ingleside.
Sweet, Mary F., Decatur.
Watkins, A. R., Chamblee.
Wilson, B. V., Decatur.

DOOLY COUNTY**Officers**

President.....Mobley, H. A.
Vice-President.....Bivins, T. F.
Secy.-Treas.....Williams, F. A.

Members

Bivins, T. F., Vienna.
Daves, V. C., Vienna.
Davis, F. B., Bromville.
Lee, J. L., Pinehurst.
Mobley, H. A., Vienna.
Moye, T. E., Vienna.
Rose, J. R., Unadilla.
Williams, F. E., Vienna.

DOUGHERTY COUNTY**Officers**

President.....Wood, A. W.
Vice-President.....Benson, N. E.
Secy.-Treas.....Cook, W. S.
Delegate.....Davis, W. L.

Members

Barnett, J. M., Albany.
Benson, N. E., Albany.
Cook, W. S., Albany.
Davis, W. L., Albany.
Hilsman, A. H., Albany.
Keaton, J. C., Albany.
Lott, Y. C., Miami, Fla.
Newell, C. E., Albany.
Redfearn, J. A., Albany.
Robinson, Hugo, Albany.
Weathers, A. F., Albany.
Wood, A. W., Albany.

DOUGLAS COUNTY**Members**

Hamilton, R. E., Douglasville.
Houseworth, D., Douglasville.

ELBERT COUNTY**Officers**

President.....Smith, A. C.
Vice-President.....Johnson, A. S.
Secy.-Treas.....Mattox, B. B.
Delegate.....Thompson, D. N.

Members

Adams, F. L., Elberton, R. F. D.
Bailey, D. V., Elberton.
Eberhardt, J. P., Elberton.
Gaines, T. H., Elberton R. F. D.
Johnson, A. S., Elberton.
Johnson, J. E., Elberton.

Mathews, W. J., Elberton (deceased.)
Mattox, B. B., Elberton.
Smith, A. C., Elberton.
Stovall, A. S. J., Elberton.
Thompson, D. N., Elberton.
Tuggle, G. C., Elberton.
Walker, O. B., Bowman.
Ward, G. A., Elberton, R. F. D.

EMANUEL COUNTY**Officers**

President.....Smith, D. D.
Vice-President.....Lucas, W. H.
Secy.-Treas.....Youmans, S. S.
Delegate.....Coleman, E. T.

Members

Bailey, J. D., Summertown.
Chandler, J. H., Swainsboro.
Coleman, E. T., Graymont.
Darden, J. W., Stillmore.
Franklin, R. C., Swainsboro.
Franklin, V. E., Graymont.
Johnson, A. C., Garfield.
Lucas, W. H., Stillmore.
Nunez, J. M., Swainsboro.
Smith, D. D., Swainsboro.
Smith, G. L., Swainsboro.
Youmans, S. S., Oakpark.

FLOYD COUNTY**Officers**

President.....McCord, M. M.
Vice-President.....Simmons, R. O.
Secy.-Treas.....Mull, J. H.
Delegate.....Shaw, W. J.

Members

Ballenger, J. P., Armuchee.
Battey, H. H., Rome.
Chandler, J. L., Rome.
Cheney, J. N., Silver Creek.
Cox, R. P., Rome.
Dellinger, A. H., Rome.
Elmore, B. V., Rome.
Floyd, W. B., Rome R. F. D. No. 2.

Garrard, J. L., Rome.
Harbin, Maxwell, Rome.
Harbin, R. M., Rome.
Harbin, W. P., Rome.
Lewis, W. H., Rome.
Maddox, R. C., Rome.
Methvin, S. R., Lindale.
Moore, Clifford, Lindale.
Mull, J. H., Rome.
McArthur, C. H., Armuchee.
McCall, J. T., Rome.
McCord, M. M., Rome.
McKinney, W. T., Cave Springs.
Penn, B. W., Rome.
Routledge, A. F., Rome.
Shamblin, A. C., Rome.
Shaw, W. J., Rome.
Simmons, R. O., Rome.
Smith, G. B., Rome.
Turner, H. A., Rome.
Watts, J. C., Rome.
Wicker, R. H., Rome.

FORSYTH COUNTY**Officers**

Secretary-Treasurer.....Mashburn, M.

Members

Bramblett, R. H., Cummings.
Brice, G. P., Flowery Branch.
Lipscomb, W. E., Cummings.
Mashburn, Marcus, Cummings.
Otwell, James A., Cummings.
Pirkle, W. W., Cummings.
Tribble, P. W., Cummings.

FRANKLIN COUNTY**Officers**

President.....Brown, S. D.
Vice-President.....Ridgway, Geo. T.
Secretary-Treasurer.....Smith, B. T.
Delegate.....McCrary, J. O.

Members

Brown, S. D., Royston.
Freeman, J. M., Lavonia.
Heller, W. B., Lavonia.
Lord, C. B., Ashland, R. F. D.
McCrary, H. L., Royston.
McCrary, J. O., Royston.

Pool, E. T., Carnesville.
 Ridgway, G. T., Royston.
 Rucks, B. T., Nashville, Tenn.
 Smith, B. T., Carnesville.
 Terrell, J. H., Canon.
 Whiteside, G. W., Lavonia.
 Williams, N. G., Canon.

FULTON COUNTY

Officers

President..... Person, W. E.
 Vice-President..... Toepel, Theo.
 Secretary-Treasurer..... Clay, Grady E.

Members

Abercrombie, T. F., State Capitol, Atlanta.
 Adams, C. R., 136 Gordon St., Atlanta.
 Adams, H. M. S., Candler Bldg., Atlanta.
 Adams, G. B., Emory University.
 Adkins, W. N., 79 Forrest Ave., Atlanta.
 Aiken, W. S., Hurt Bldg., Atlanta.
 Allen, E. A., 20 Ponce de Leon Ave., Atlanta.
 Almand, C. A., 79 Forrest Ave., Atlanta.
 Anderson, W. W., Doctors' Bldg., Atlanta.
 Armstrong, T. B., Hurt Bldg., Atlanta.
 Arnold, W. A., Atl. Nat. Bk. Bldg., Atlanta.
 Arthur, J. F., U. S. Veteran's Bureau, Atlanta.
 Askew, H. H., Candler Bldg., Atlanta.
 Avary, A., 186 S. Pryor St., Atlanta.
 Avary, J. C., 97 Oakdale Rd., Atlanta.
 Aven, C. C., Hurt Bldg., Atlanta.
 Ayers, A. J., Grady Hospital, Atlanta.
 Ayer, G. D., Hurt Bldg., Atlanta.
 Bachman, Geo., Emory University.
 Baggett, L. G., Hurt Bldg., Atlanta.
 Baird, J. B., Sr., Peters Bldg., Atlanta. (Deceased.)
 Baird, J. B., Jr., Peters Bldg., Atlanta.
 Baird, N. W., 211 1-2 Lee St., Atlanta.
 Baker, W. Pope, 79 Forrest Ave., Atlanta.
 Ballenger, E. G., Healey Bldg., Atlanta.
 Ballenger, W. L., Doctors' Bldg., Atlanta.
 Barber, W. E., Healey Bldg., Atlanta.
 Barfield, F. M., Healey Bldg., Atlanta.
 Barfield, J. R., Doctors' Bldg., Atlanta.
 Barnett, S. T., 20 E. Linden, Atlanta.
 Bartholomew, R. A., 20 Ponce de Leon Ave., Atlanta.
 Beasley, B. T., Hurt Bldg., Atlanta.
 Benson, C. F., 4th Nat'l. Bk. Bldg., Atlanta.
 Benson, M. T., Atl. Nat. Bk. Bldg., Atlanta.
 Best, P. W., Candler Bldg., Atlanta.
 Bivings, F. C., Exchange Bldg., Atlanta.
 Bivings, F. L., Tr. Co. of Ga. Bldg., Atlanta.
 Bivings, W. T., Exchange Bldg., Atlanta.
 Blackburn, J. D., 373 Courtland St., Atlanta.
 Blackman, W. W., 172 Capitol Ave., Atlanta.
 Blalock, J. C., Hurt Bldg., Atlanta.
 Blandford, M. H., 1522 S. 19th St., Birmingham, Ala.
 Blandford, W. C., Candler Bldg., Atlanta.

Block, E. B., Doctors' Bldg., Atlanta.
 Boland, Chas., G., Haas-Howell Bldg., Atlanta.
 Boland, F. K., Doctors' Bldg., Atlanta.
 Bowcock, H. M., Doctors' Bldg., Atlanta.
 Boyd, M. L., Hurt Bldg., Atlanta.
 Boynton, C. E., 48 Forrest Ave., Atlanta.
 Brawner, A. F., Grant Bldg., Atlanta.
 Brawner, J. N., Grant Bldg., Atlanta.
 Brice, J. Theo., 826 Peachtree St., Atlanta.
 Brown, S. T., Atl. N. Bk. Bldg., Atlanta.
 Brown, W. T., Atl. Nat. Bk. Bldg., Atlanta.
 Bucknell, Howard, 41 Forrest Ave., Atlanta.
 Buff, J. H., Hurt Bldg., Atlanta.
 Bunce, A. H., 65 Forrest Ave., Atlanta.
 Bush, O. B., Atl. Nat. Bk. Bldg., Atlanta.
 Byrd, E. S., 20 E. Linden, Atlanta.
 Byrd, H. O., 502 Peters Bldg., Atlanta.
 Caldwell, A. F., Grant Bldg., Atlanta.
 Calhoun, F. P., Doctors' Bldg., Atlanta.
 Callaway, J. T., Ga. Sav. Bk Bldg., Atlanta.
 Campbell, J. L., Doctors' Bldg., Atlanta.
 Campbell, M. G., 354 Ponce de Leon Ave., Atlanta.
 Campbell, W. E., Atl. Nat. Bk. Bldg., Atlanta.
 Campbell, W. E., Jr., Atl. Nat. Bk. Bldg., Atlanta.
 Carter, H. G., Candler Bldg., Atlanta.
 Catron, I. T., McGlawn-Bowen Bldg., Atlanta.
 Champion, W. L., Grant Bldg., Atlanta.
 Cheney, G. W. H., 746 Peachtree St., Atlanta.
 Childs, J. R., Hurt Bldg., Atlanta.
 Childs, L. W., Grant Bldg., Atlanta.
 Clark, J. J., Doctors' Bldg., Atlanta.
 Clay, Grady E., Doctors' Bldg., Atlanta.
 Clifton, B. H., Hurt Bldg., Atlanta.
 Cline, B. McH., Candler Bldg., Atlanta.
 Cole, G. C., 907 Marietta St., Atlanta.
 Cofer, O. S., Grant Bldg., Atlanta.
 Collier, T. J., 436 Peachtree St., Atlanta.
 Colvin, E. S., Healey Bldg., Atlanta.
 Cook, G. L., 48 Forrest Ave., Atlanta.
 Cooke, Virgil C., Healey Bldg., Atlanta.
 Cooper, J. H., Candler Bldg., Atlanta.
 Copeloff, M. B., Grant Bldg., Atlanta.
 Corley, F. L., Candler Bldg., Atlanta.
 Cousins, W. L., Candler Bldg., Atlanta.
 Cowan, Z. S., Haas-Howell Bldg., Atlanta.
 Craig, Newton, Doctors' Bldg., Atlanta.
 Crawford, E. D., Grant Bldg., Atlanta.
 Crawford, H. C., Doctors' Bldg., Atlanta.

Crawford, J. H., Grant Bldg., Atlanta.
 Crichton, R. B., Atl. Nat. Bk. Bldg., Atlanta.
 Cromer, J. D., 85 Forrest Ave., Atlanta.
 Crowe, W. A., Smyrna.
 Curtis, C. M., College Park.
 Dabney, W. C., 95 Forrest Ave., Atlanta.
 Daly, Leo. P., 41 Forrest Ave., Atlanta.
 Daly, R. R., Ga. Sav. Bk. Bldg., Atlanta.
 Daniel, Eugene L., Kirkwood.
 Davenport, T. F., 4th Nat. Bk. Bldg., Atlanta.
 Davis, E. C., 25 East Linden, Atlanta.
 Davis, J. E., Atl. Nat. Bk. Bldg., Atlanta.
 Davis, W. A., State Capitol, Atlanta.
 Davison, Hal M., Doctors' Bldg., Atlanta.
 Davison, T. C., Doctors' Bldg., Atlanta.
 Dawson, A., 357 Peters St., Atlanta.
 DeLoach, A. G., Atl. Trust Co., Bldg., Atlanta.
 Denton, J. F., Doctors' Bldg., Atlanta.
 Derr, J. S., Hurt Bldg., Atlanta.
 Dimmock, A. M., Hurt Bldg., Atlanta.
 Donaldson, H. R., Grant Bldg., Atlanta.
 Dorsey, R. T., 20 E. Linden, Atlanta.
 Doss, N. C., Houston, Texas.
 Dowman, C. E., 78 Forrest Ave., Atlanta.
 Duncan, B. C., Candler Bldg., Atlanta.
 Duncan, John B., 4th Nat. Bk. Bldg., Atlanta.
 Dunn, W. M., Candler Bldg., Atlanta.
 Duvall, W. B., 20 E. Linden Ave., Atlanta.
 Earnest, J. G., 165 Juniper St., Atlanta.
 Edgerton, M. T., Candler Bldg., Atlanta.
 Elder, E. B., Ga. Baptist Hosp., Atlanta.
 Elkin, Arch, Doctors' Bldg., Atlanta.
 Elkin, Dan C., 436 Peachtree St., Atlanta.
 Elkin, W. S., Doctors' Bldg., Atlanta.
 Ellis, J. N., Atl. Nat. Bk. Bldg., Atlanta.
 Emery, W. B., Candler Bldg., Atlanta.
 Eskridge, Frank, Atl. Nat. Bk. Bldg., Atlanta.
 Equest, M. S., Grand Bldg., Atlanta.
 Estes, J. L., 79 Forrest Ave., Atlanta.
 Etheridge, W. M., Peters Bldg., Atlanta.
 Fancher, J. K., Ga. Sav. Bk. Bldg., Atlanta.
 Fanning, O. O., Grand Bldg., Atlanta.
 Fincher, E. F., 502 1-2 Flat Shoals Ave., Atlanta.
 Fischer, L. C., 25 E. Linden, Atlanta.
 Fitts, John B., Atl. Nat. Bk. Bldg., Atlanta.
 Flick, W. A., Hurt Bldg., Atlanta.
 Flowers, A. P., Candler Bldg., Atlanta.
 Floyd, Earl H., Hurt Bldg., Atlanta.
 Floyd, J. T., Candler Bldg., Atlanta.
 Folsom, S. A., Haines City, Fla.

- Fort, A. G., Doctors' Bldg., Atlanta.
- Foster, K. E., College Park.
- Freeman, J. F., 304 Hemphill Ave., Atlanta.
- Freeman, Wm. T., 79 Forrest Ave., Atlanta.
- Fuller, G. W., Hurt Bldg., Atlanta.
- Fuller, J. R., Atl. Trust Co., Bldg., Atlanta.
- Funke, John, Hurt Bldg., Atlanta.
- Funkhouser, W. L., 23 Kimball, Atlanta.
- Gaines, L. M., 65 Forrest Ave., Atlanta.
- Gardner, W. A., Peachtree Bldg., Atlanta.
- Garner, J. R., 120 E. Hunter St., Atlanta.
- Giddings, C. G., Doctors' Bldg., Atlanta.
- Giddings, Glennville, Doctors' Bldg., Atlanta.
- Gilbert, W. L., Atl. Nat. Bk. Bldg., Atlanta.
- Gober, W. Mayes, 436 Peachtree St., Atlanta.
- Goldsmith, L. H., 746 Peachtree St., Atlanta.
- Goldsmith, W. S., Healey Bldg., Atlanta.
- Goodpasture, W. C., Hurt Bldg., Atlanta.
- Goodwyn, T. P., 436 Peachtree St., Atlanta.
- Greene, E. H., Doctors' Bldg., Atlanta.
- Grove, L. W., 53 Forrest Ave., Atlanta.
- Guffin, T. F., East Point.
- Hailey, W. H., Candler Bldg., Atlanta.
- Hall, C. E., 4th Nat. Bk. Bldg., Atlanta.
- Hall, O. D., Hurt Bldg., Atlanta.
- Hames, F. W., Candler Bldg., Atlanta.
- Hancock, Chas. R., Atl. Nat. Bk. Bldg., Atlanta.
- Hancock, T. H., 30 Crew St., Atlanta.
- Hardin, L. S., 41 Forrest Ave., Atlanta.
- Harrison, M. T., 25 E. Linden St., Atlanta.
- Heyser, D. T., 70 S. Boulevard, Atlanta.
- Highsmith, E. D., Trust Co. of Ga. Bldg., Atlanta.
- Hinkle, F. W., 211 1-2 Lee St., Atlanta.
- Hodges, J. H., Hapeville, Atlanta.
- Hodges, W. A., 1282 DeKalb Ave., Atlanta.
- Hodgson, F. G., 746 Peachtree St., Atlanta.
- Hoke, Michael, 15 W. Alexander St., Atlanta.
- Holmes, C. H., 53 Forrest Ave., Atlanta.
- Holmes, W. R., Doctors' Bldg., Atlanta.
- Hoppe, L. D., 79 Forrest Ave., Atlanta.
- Horton, B. E., Connally Bldg., Atlanta.
- Howard, P. M., College Pk.
- Hudson, P. L., Atl. Nat. Bk. Bldg., Atlanta.
- Huguley, G. P., 54 Forrest Ave., Atlanta.
- Hull, M. McH., Grant Bldg., Atlanta.
- Hunter, C. W., 350 W. Peachtree St., Atlanta.
- Hurt, J. S., Doctors' Bldg., Atlanta.
- Jackson, Zach W., 436 Peachtree St., Atlanta.
- Jenkins, M. K., Atl. Nat. Bk. Bldg., Atlanta.
- Johnson, J. C., Doctors' Bldg., Atlanta.
- Johnson, T. C., Doctors' Bldg., Atlanta.
- Jones, Francis G., Hurt Bldg., Atlanta.
- Jones, Jack W., Atl. Trust Co., Bldg., Atlanta.
- Jones, Willis B., Atl. Nat. Bk. Bldg., Atlanta.
- Jones, W. T., Ga. Sav. Bk. Bldg., Atlanta.
- Kea, V. E., Candler Bldg., Atlanta.
- Kelley, L. H., Hurt Bldg., Atlanta.
- Kennedy, David R., 41 Forrest Ave., Atlanta.
- Kennedy, J. P., City Hall, Atlanta.
- Key, Claude T., 436 Peachtree St., Atlanta.
- Kinard, J. O., Candler Bldg., Atlanta.
- King, J. C., Peachtree Bldg., Atlanta.
- Kirkland, S. A., 436 Peachtree St., Atlanta.
- Kite, J. H., Scottish Rite Hosp., Decatur.
- Klugh, Geo. F., 65 Forrest Ave., Atlanta.
- Knight, J. H., Eagan, Ga.
- Lake, Wm. F., 25 E. Linden, Atlanta.
- Landham, J. W., 65 Forrest Ave., Atlanta.
- Lehman, J. S., Haas-Howell Bldg., Atlanta.
- Lokey, H. M., Doctors' Bldg., Atlanta.
- Longino, D. R., Atl. Nat. Bk. Bldg., Atlanta.
- Longino, T. D., 61 Park St., Atlanta.
- Luck, B. B., Buckinridge, Texas. (Deceased.)
- Lyle, W. C., Candler Bldg., Atlanta.
- Manget, J. D., 65 Forrest Ave., Atlanta.
- Martin, J. J., Doctors' Bldg., Atlanta.
- Mashburn, C. M., 65 Forrest Ave., Atlanta.
- Matthews, O. H., 65 Forrest Ave., Atlanta.
- Miller, H. C., Hurt Bldg., Atlanta.
- Minor, H. W., Atl. Nat. Bk. Bldg., Atlanta.
- Mizell, G. C., 54 Forrest Ave., Atlanta.
- Monfort, J. M., Hurt Bldg., Atlanta.
- Moon, P. L., Atl. Nat. Bk. Bldg., Atlanta.
- Morris, S. L., Jr., Grant Bldg., Atlanta.
- Murphy, C. E., Candler Bldg., Atlanta.
- Murray, G. M., Atl. Nat. Bk. Bldg., Atlanta.
- Muse, L. H., 4th Nat. Bk. Bldg., Atlanta.
- McAliley, R. Geo., 4th Nat. Bk. Bldg., Atlanta.
- McAllister, J. A., Hurt Bldg., Atlanta.
- McCay, C. G., Atl. Nat. Bk., Bldg., Atlanta.
- McCord, J. R., 373 Courtland St., Atlanta.
- McDougall, J. C., Atl. Trust Co. Bldg., Atlanta.
- McDougall, W. L., Atl. Nat. Bk. Bldg., Atlanta.
- McDuffie, H. F., 350 W. Peachtree St., Atlanta.
- McGarity, J. A., 20 Ponce de Leon Ave., Atlanta.
- McGehee, H. M., Hurt Bldg., Atlanta.
- McLarty, M. W., Atl. Nat. Bk. Bldg., Atlanta.
- McRae, F. W., Jr., Doctor's Bldg., Atlanta.
- McRae, J. C., Doctors' Bldg., Atlanta.
- Nellans, C. T., 65 Forrest Ave., Atlanta.
- Nesbit, F. C., Candler Bldg., Atlanta.
- Newberry, R. E., Candler Bldg., Atlanta.
- Nicolson, W. P., Sr., Doctors' Bldg., Atlanta.
- Nicolson, W. P., Jr., Doctors' Bldg., Atlanta.
- Niles, G. M., Candler Bldg., Atlanta.
- Noble, G. H., Sr., 186 S. Pryor St., Atlanta.
- Noble, G. H., Jr., 186 S. Pryor St., Atlanta.
- Olds, B. A., 79 Forrest Ave., Atlanta.
- Oppenheimer, R. H., Wesley Memorial Hosp., Atlanta.
- Owensby, N. M., Peters Bldg., Atlanta.
- Paine, C. H., 53 Forrest Ave., Atlanta.
- Patton, L. S., 436 Peachtree St., Atlanta.
- Paulin, J. E., Doctors' Bldg., Atlanta.
- Pearce, B. E., 41 Forrest Ave., Atlanta.
- Pentecost, M. P., Flatiron Bldg., Atlanta.
- Person, W. E., Candler Bldg., Atlanta.
- Pinson, C. H., Hapeville, Ga.
- Powell, J., Atl. Nat. Bk. Bldg., Atlanta.
- Powell, W. M., Candler Bldg., Atlanta.
- Pruitt, M. C., 65 Forrest Ave., Atlanta.
- Quillian, G. W., 632 Peachtree St., Atlanta.
- Quillian, W. E., Atl. Nat. Bk. Bldg., Atlanta.
- Ragan, W. E., Jr., 79 Forrest Ave., Atlanta.
- Ratliffe, J. W., Candler Bldg., Atlanta.
- Rawiszer, Hubert, Candler Annex, Atlanta.
- Redd, S. C., 79 Forrest Ave., Atlanta.
- Reed, Clinton, Candler Bldg., Atlanta.
- Reynolds, H. L., 53 Forrest Ave., Atlanta.
- Rhodes, C. A., Atl. Nat. Bk. Bldg., Atlanta.
- Ridley, H. W., Hurt Bldg., Atlanta.
- Ridley, R. B., Jr., Atl. Nat. Bk. Bldg., Atlanta.
- Roberts, C. W., 20 E. Linden, Atlanta.
- Roberts, J. W., Doctors' Bldg., Atlanta.
- Roberts, M. H., 20 Ponce de Leon Ave., Atlanta.
- Roberts, S. R., 20 Ponce de Leon Ave., Atlanta.
- Robinson, L. B., 20 E. Linden Ave., Atlanta.
- Robinson, W. C., Atl. Nat. Bk. Bldg., Atlanta.
- Rosenberg, H. J., Hurt Bldg., Atlanta.
- Rouglin, L. C., Hurt Bldg., Atlanta.
- Roy, Dunbar, Grand Bldg., Atlanta.
- Rushin, C. E., Doctors' Bldg., Atlanta.
- Sage, D. Y., Ga. Sav. Bk. Bldg., Atlanta.
- Sanders, A. S., 65 Forrest Ave., Atlanta.
- Sauls, H. C., Doctors' Bldg., Atlanta.
- Sawyer, Annie L., Grant Bldg., Atlanta.
- Schneider, J. F., Decatur (East Lake).
- Selman, W. A., 79 Forrest Ave., Atlanta.

Shackleford, B. L., 79 Forrest Ave., Atlanta.
 Shallenberger, W. F., 24 E. Kimball St., Atlanta.
 Shanks, E. D., Doctors' Bldg., Atlanta.
 Sharp, W. B., Peters Bldg., Atlanta.
 Sims, M. R., 79 Forrest Ave., Atlanta.
 Sinkoe, S. J., Candler Bldg., Atlanta.
 Smith, Archibald, Ga. Sav. Bk. Bldg., Atlanta.
 Smith, Linton, 65 N. Mayson Ave., Atlanta.
 Smith, M. F., 246½ Bellwood Ave., Atlanta.
 Smith, W. R., 746 Peachtree St., Atlanta.
 Sommerfield, J. E., Healey Bldg., Atlanta.
 Spearman, G. F., 41 Forrest Ave., Atlanta.
 Stampa, S., Candler Bldg., Atlanta.
 Steedly, B. B., 78 Forrest Ave., Atlanta.
 Stegall, Paul, 249½ Houston St., Atlanta.
 Stephens, L. P., Grant Bldg., Atlanta.
 Stephens, R. G., Candler Bldg., Atlanta.
 Stirling, A. W., Atl. Trust Co. Bldg., Atlanta.
 Stockard, C., Doctors' Bldg., Atlanta.
 Strickler, C. W., 53 Forrest Ave., Atlanta.
 Sutton, F. M., 65 Forrest Ave., Atlanta.
 Swanson, Cosby, Doctors' Bldg., Atlanta.
 Thomas, E. B., Hurt Bldg., Atlanta.
 Thompson, J. D., 78 Forrest Ave., Atlanta.
 Thornton, Lawson, 15 W. Alexander St., Atlanta.
 Thrash, E. C., 79 Forrest Ave., Atlanta.
 Toepel, Theo., 78 Forrest Ave., Atlanta.
 Tribble, N. O., Atl.-Sou. Dental College, Atlanta.
 Turner, J. W., Hurt Bldg., Atlanta.
 Upchurch, W. A., Atl. Nat. Bk. Bldg., Atlanta.
 Upshaw, C. B., 23 E. Kimball St., Atlanta.
 Vaughn, C. J., 246 Houston St., Atlanta.
 Vaughan, H., Hurt Bldg., Atlanta.
 Vinson, C. D., 54 Forrest Ave., Atlanta.
 Visanska, S. A., 41 Forrest Ave., Atlanta.
 Vogt, F. A., 65 Forrest Ave., Atlanta.
 Wagnon, B. H., 57 E. Fair St., Atlanta.
 Waits, Chas. E., Hurt Bldg., Atlanta.
 Ward, C. P., Ga. Sav. Bk. Bldg., Atlanta.
 Ward, Emmett, 65 Forrest Ave., Atlanta.
 Ware, C. E., Hurt Bldg., Atlanta.
 Warren, W. C., Atl. Nat. Bk. Bldg., Atlanta.
 Weaver, J. C., 78 Forrest Ave., Atlanta.
 Wells, W. Frank, 65 Forrest Ave., Atlanta.
 West, C. M., Hurt Bldg., Atlanta.
 Westmoreland, W. F., 53 Forrest Ave., Atlanta.
 White, Jno. B., 65 Forrest Ave., Atlanta.
 White, J. C., Atl. Nat. Bk. Bldg., Atlanta.
 White, O. T., 372 N. Jackson St., Atlanta.

Wiggins, L. W., Atl. Nat. Bk. Bldg., Atlanta.
 Wilkins, C. A., Hurt Bldg., Atlanta.
 Wood, E. B., Candler Bldg., Atlanta.
 Yampolsky, Jos., Candler Bldg., Atlanta.
 Yankey, W. E., Doctors' Bldg., Atlanta.

GLYNN COUNTY

Officers

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 Vice-President.....Burford, R. E. L.
 Secy.-Treas.....Harrell, J. P.

Members

Akeridge, H. L., Brunswick.
 Branham, H. M., Brunswick.
 Burford, R. E. L., Brunswick.
 Darby, V. L., Brunswick.
 Dunwody, J. A., Brunswick.
 Greer, C. B., Brunswick.
 Harrell, J. P., Brunswick.
 Holton, T. J., Brunswick.
 Odum, W. M., Brunswick.
 Simmons, J. W., Brunswick.

GORDON COUNTY

Officers

President.....Gray, R. M.
 Vice-President.....Acree, M. A.
 Secy.-Treas.....Johnston, Z. V.
 Delegate.....Gray, R. M.

Members

Acree, M. A., R. F. D. No. 1, Calhoun.
 Barnett, W. R., Calhoun.
 Erwin, J. M., Calhoun.
 Fite, B. W., Resaca.
 Gray, R. M., Sugar Valley.
 Hutcherson, S. F., Adairsville.
 Johnston, Z. V., Route 1, Calhoun.
 Mills, G. W., Calhoun.
 McLain, C. F., Calhoun.
 Puckett, A. M., Oakman.
 Richards, W. R., Calhoun.
 Rogers, R. L., Fairmount.
 Shellhorse, E. O., Dalton.

GRADY COUNTY

Officers

President.....Warnell, J. B.
 Secy.-Treas.....Rogers, J. V.

Members

Arline, T. J., Cairo.
 Edge, H. M., Cairo.
 Harden, J. E., Whigham.
 Lindsey, J. A., Cairo.
 Reynolds, A. B., Reno.
 Rogers, J. V., Cairo.
 Walker, W. A., Cairo.
 Warnell, J. B., Cairo.

GREENE COUNTY

Officers

Secy.-Treas.....Gheesling, Goodwin

Members

Adams, E. G., Greensboro.
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GWINNETT COUNTY

Officers

President.....Guthrie, N. J.
 Vice-President.....Hutchins, W. J.
 Delegate.....Hutchins, W. J.

Members

Cochran, J. S., Norcross.
 Guthrie, N. J., Norcross.
 Hambrick, H. P., College Park.
 Hinton, W. T., Dacula.
 Hutchins, W. J., Buford.
 Kelley, C. A., Lilburn.
 Kelley, D. C., Lawrenceville.
 Orr, J. C., Buford.
 Pierce, N. H., Suwanee.

HABERSHAM COUNTY

Officers

President.....Lamb, E. H.
 Vice-President.....Boland, S. A.
 Secy.-Treas.....Lamb, R. B.
 Delegate.....Duckett, P. Y.

Members

Boland, S. A., Thomson.
 Brabson, T. H., Cornelia.
 Burns, J. K., Sr., Clarkesville.
 Obandler, W. V., Baldwin.
 Collins, Katherine, R. Turnerville.
 Duckett, P. Y., Cornelia.
 Garrison, W. H., Clarkesville.
 Glidden, Edson, W., Alto.
 Green, J. A., Clayton.
 Jackson, J. B., Clarkesville.
 Lamb, E. H., Demorest.
 Lamb, R. B., Demorest.
 McClure, J. H., Cornelia.

HALL COUNTY

Officers

President.....Davis, B. B.
 Vice-President.....Rogers, R. L.
 Secy.-Treas.....Cheek, Pratt
 Delegate.....Downey, J. H.

Members

Blackwelder, B. D., Gainesville.
 Bryan, J. A., Gillsville.
 Bryson, L. R., Gainesville.
 Burns, J. K., Jr., Gainesville.
 Cheek, Pratt, Gainesville.
 Davis, B. B., Gainesville.
 Downey, J. H., Gainesville.
 Gibbs, E. T., Gainesville.
 Gower, J. C., Gainesville.
 Kitchens, J. A., Murrayville.
 Lislies, Homer, Flowery Branch.
 Lislies, W. W., Flowery Branch.
 Mauldin, J. D., Gainesville.
 Meeks, J. L., Gainesville.
 Meeks, W. T., New Holland.
 Palmer, W. A., Gainesville.
 Quillian, W. H., Lula.
 Rogers, R. L., Gainesville.
 Rudolph, J. B., Gainesville.
 Simpson, J. R., Gainesville.
 Tittshaw, H. S., Gainesville.
 Wheelchel, C. D., Gainesville.
 Williams, Geo. C., Clermont.

HANCOCK COUNTY

Members

Jernigan, C. S., Sparta.

HARALSON COUNTY

Members

Malone, W. H., Tallapoosa.

HART COUNTY

Officers

President.....Harper, G. T.
 Vice-President.....Meredith, A. O.
 Secy.-Treas.....Gaines, T. R.
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Members

Clark, Geo. S., Hartwell.
 Gaines, T. R., Hartwell.
 Hailey, W. I., Hartwell.
 Harper, G. T., Dewy Rose.
 Jenkins, J. C., Hartwell.
 Jenkins, J. I., Rowman.
 Meredith, A. O., Hartwell.
 McCurry, W. E., Hartwell.
 Teasley, B. C., Hartwell.

HENRY COUNTY

Officers

President.....Smith, J. G.
 Secy.-Treas.....Sloan, W. P.
 Delegate.....Tye, R. L.

Members

Colvin, E. G., Locust Grove.
 Combs, J. A., Rosedale Drive, Atlanta.
 Crawford, R. L., Locust Grove.
 Ellis, H. C., McDonough.
 Sloan, W. P., McDonough.
 Smith, J. G., McDonough.
 Tye, R. L., McDonough.
 Weldon, J. B., Hampton.

HOUSTON COUNTY

Members

Brown, M. S., Ft. Valley.
 Cater, R. L., Perry.
 Evans, H. E., Perry.
 Hickson, M. L., Ft. Valley.
 Orr, W. L., Perry.

Story, J. W., Kathleen.

IRWIN COUNTY Officers

President..... Willis, G. W.
Vice-President..... McElroy, S. L.
Secy.-Treas..... Whiddon, L. L.
Delegate..... Harper, A.

Members

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Luke, J. C., Ocilla.
Lyon, H. P., 289 E. North Ave.,
Atlanta.
McElroy, S. L., Ocilla.
Whiddon, L. L., Ocilla.
Willis, G. W., Ocilla.

JACKSON COUNTY Officers

President..... Hubbard, F. M.
Vice-President..... Smith, S. J.
Secy.-Treas..... Bennett, J. C.
Delegate..... Allen, M. B.

Members

Allen, L. C., Hoschton.
Allen, M. B., Hoschton.
Bennett, J. C., Jefferson.
Campbell, J. H., Jefferson.
Crow, H. E., Talmo.
Freeman, Ralph, Commerce.
Hardman, L. G., Commerce.
Hubbard, F. M., Commerce.
Kennedy, W. C., Talmo.
McDonald, E. M., Jefferson.
Rogers, A. A., Commerce.
Sanders, Laetus, Commerce.
Shankle, O. E., Commerce.
Smith, S. J., Jefferson.
Verner, J. C., Commerce.

JASPER COUNTY Officers

President..... Cary, R. F.
Vice-President..... Pittard, L. Y.
Delegate..... Belcher, F. S.

Members

Anderson, J. F., Hillsboro.
Belcher, F. S., Monticello.
Brown, J. A., Shady Dale.
Cary, R. F., Monticello.
Lancaster, E. M., Shady Dale.
Pittard, L. Y., Monticello.

JEFFERSON COUNTY Members

Holmes, Roy, J., Miami, Fla.

JENKINS COUNTY Officers

President..... Perkins, M. E.
Secy.-Treas..... Thompson, C.
Delegate..... Mulkey, Q. A.

Members

Mulkey, Q. A., Millen.
Perkins, M. E., Millen.
Thompson, C., Millen.

JOHNSON COUNTY Officers

President..... Harris, T. I.
Vice-President..... Johnson, S. M.
Secy.-Treas..... Brantley, J. G.
Delegate..... Brinson, R. E.

Members

Brantley, J. G., Wrightsville.
Brinson, R. E., Wrightsville.
Harris, T. L., Wrightsville.
Harrison, D. C., Kite.
Johnson, S. M., Wrightsville.

JONES COUNTY Officers

President..... Riley, J. H.
Secy.-Treas..... Chambliss, P. R.
Delegate..... Riley, J. H.

Members

Chambliss, P. R., Gray.
Riley, J. H., Haddock.
White, B. L., Round Oak.
Zachary, J. D., Bradley.

LAMAR COUNTY Officers

President..... Willis, C. H.
Vice-President..... Suggs, C. E.
Secy.-Treas..... Anderson, J. M.
Delegate..... Pritchett, D. W.

Members

Anderson, J. M., Barnesville.
Barron, J. M. F., R. F. D., Milner.
Corry, J. A., Barnesville.
Pritchett, D. W., Barnesville.
Rogers, J. M., Barnesville.
Suggs, C. E., Barnesville.
Willis, C. H., Barnesville.

LAURENS COUNTY Officers

President..... New, J. E.
Vice-President..... Hodges, C. A.
Secy.-Treas..... Cheek, O. H.
Delegate..... Hodges, C. A.

Members

Barton, J. J., Dublin.
Beddingfield, W. E., Rentz.
Benson, R. S., Dublin.
Brigham, W. R., Dublin.
Chappell, R. J., Dudley.
Cheek, O. H., Dublin.
Claxton, E. B., Dublin.
Coleman, A. T., Dublin.
Duggan, J. H., Irwinton.
Edmondson, J. W., Dublin.
Fort, James A., Scott.
Hodges, C. A., Dublin.
Kea, T. B., Adrian.
Montford, H. L., Dublin.
Moye, C. G., Brewton.
New, J. E., Dexter.
Parkerson, I. J., Cadwell.
Rountree, A. M., Adrian.
Taylor, T. J., Rentz.
Thompson, W. C., Dublin.
Walker, Sidney, Dublin.
Wall, T. H., Dublin.
Weddington, J. L., Dublin.

LOWNDES COUNTY Officers

Secy.-Treas..... Bird, Frank

Members

Bird, Frank, Valdosta.
Colson, A. C., Valdosta.
Griffin, A., Valdosta.
Hughes, H. G., Homerville.
Little, A. G., Valdosta.
Mixon, J. P., Valdosta.
Prescott, J. P., Lake Park.
Quarterman, P. C., Valdosta.
Smith, E. J., Hahira.
Smith, J. M., Valdosta.
Smith, T. H., Valdosta.
Talbot, T. M., Valdosta.
Thomas, F. H., Valdosta.
Thomas, J. A., Valdosta.

MACON-TAYLOR COUNTIES Officers

Secy.-Treas..... Mangham, J. E.

Members

Bryan, S. H., Reynolds.
Derrick, H. C., Oglethorpe.
Fickling, C. F., Butler.
Greer, C. A., Oglethorpe.
Lightner, L. L., Ideal.
Mangham, J. E., Reynolds.
Montgomery, R. C., Butler.
Mullino, F. M., Montezuma.
McGill, R. E., Montezuma.
Richardson, C. H., Sr., Monte-
zuma.
Turk, T. G., Reynolds.

MADISON COUNTY Officers

Secy.-Treas..... Gholston, W. D.
Delegate..... Roper, L. E.

Members

Baker, J. L., Carlton.
Bannister, H. G., Ila.
Bradford, R. W., Carlton.
Gholston, W. D., Danielsville.
Loden, G. L., Colbert.
Moore, M. P., Carlton.

Roper, L. E., Comer.
Wallace, J. W., Commerce, R.F.D.
Westbrook, R. J., Ila.

MERIWETHER COUNTY Officers

Acting Secy..... Norman, Frank P.

Members

Bennett, V. H., Gay.
Dixon, J. L., Woodbury.
Gilbert, R. B., Greenville.
Johnson, J. A., Manchester.
Norman, Frank P., Greenville.
Witt, M. S., Manchester.

MITCHELL COUNTY Officers

President..... Williams, B.
Secy.-Treas..... Roles, C. L.
Delegate..... Spence, J. M.

Members

Belcher, D. P., Pelham.
Carreker, J. P., Cotton.
Clements, J. R., Pelham.
Garrett, J. A., Baconton.
Hill, Roy, Pelham.
Roles, C. L., Camilla.
Spence, J. M., Camilla.
Williams, B., Pelham.

MONROE COUNTY Officers

Secy.-Treas..... Smith, W. J.

Members

Alexander, G. L., Forsyth.
Elrod, J. O., Forsyth.
Goolsby, R. C., Jr., Forsyth.
Goolsby, R. C., Sr., Forsyth.
Ponder, W. P., Forsyth.
Smith, B. L., Forsyth.
Smith, W. J., Juliette.

MONTGOMERY COUNTY Officers

President..... Findley, C. W.
Delegate..... Palmer, J. W.

Members

Dees, J. H., Alston.
Findley, C. W., Uvalda.
Palmer, J. W., Alley.

MORGAN COUNTY Members

Carter, D. M., Madison.
Fambrough, W. M., Bostwick.
McGeary, W. C., Madison.
Nicholson, J. H., Covington Apts.,
Philadelphia, Pa.
Porter, J. L., Rutledge.
Prior, F. M., Apalachee.
Troutt, J. H., Madison.

MUSCOGEE COUNTY Officers

President..... McDuffie, J. H., Sr.
Vice-President..... Jordan, W. P.
Secy.-Treas..... Torbett, R. S.
Delegate..... Anderson, J. M.

Members

Anderson, J. M., Columbus.
Baird, J. M., Columbus.
Baker, E. L., Columbus.
Blackman, Francis, Columbus.
Blanchard, Mercer, Columbus.
Brannon, O. C., Miami, Fla.
Campbell, W. H., Columbus.
Carter, C. B., Columbus.
Cooke, W. L., Columbus.
Cosby, F. L., Jr., Miami, Fla.
Dexter, C. A., Columbus.
Dykes, A. N., Columbus.
Gann, W. F., Columbus.
Gautier, W. T., 1647 W. 11th St.,
Los Angeles, Calif.
Hudson, B. B., Cataula.
Jameson, B. B., Columbus.
Jenkins, W. F., Columbus.
Johnson, C. D., Columbus.
Johnson, R. F., Columbus.
Jones, W. R., Columbus.
Jordan, W. P., Columbus.
Matthews, J. H., Columbus.

Mitchell, T. E., Columbus.
 Moses, Alice, Columbus.
 Murray, G. S., Columbus.
 McDuffie, J. H., Sr., Columbus.
 McDuffie, J. H., Jr., Columbus.
 McMichael, V. H., Columbus.
 Norris, J. P., Columbus.
 Odom, Fidelia J., Columbus.
 Peacock, C. A., Columbus.
 Pennington, J. H., Columbus.
 Pennington, M. F., Columbus.
 Thrash, J. A., Columbus.
 Torbett, R. S., Columbus.
 Whitehead, W. F., Columbus.
 Winn, J. H., 1410 E. 50th St.,
 Chicago, Ill.
 Woolridge, J. C., Columbus.
 Youmans, J. R., Columbus.
 Young, S. E., Midland.

McDUFFIE COUNTY

Officers

President.....Gibson, S.
 Vice-President.....Gibson, W. A.
 Secy.-Treas.....Pryce, R. Y.
 Delegate.....Pryce, R. Y.

Members

Colvin, F. G., Thomson.
 Gibson, Sterling, Thomson.
 Gibson, W. A., Thomson.
 Pryce, R. Y., Thomson.

NEWTON COUNTY

Officers

Secy.-Treas.....Travis, W. D.

Members

Lovelace, J. C., Porterdale.
 Pharr, Lenard, J., Newborn.
 Randle, J. H., Rt. 8, Covington.
 Sams, J. R., Rt. 8, Covington.
 Travis, W. D., Covington.
 Waites, S. L., Covington.
 Wilson, Pleas., Newborn.

OCMULGEE COUNTY

Officers

President.....Wall, J. Cox
 Vice-President.....Wilkins, A. L.
 Secy.-Treas.....Pirkle, W. H.
 Delegate.....Massey, W. F.

Members

Brown, E. C., Hawkinsville.
 Burns, A. B., Hawkinsville.
 Coleman, W. A., Eastman.
 Massey, W. F., Chester.
 Pirkle, W. H., Cochran.
 Puett, W. W., Eastman.
 Smith, A. L., Cochran.
 Smith, E. L., Eastman.
 Smith, J. M., Cochran.
 Wall, J. C., Eastman.
 Whipple, R. L., Cochran.
 Wilkins, A. L., Eastman.
 Williams, W. C., Cochran.

PAULDING COUNTY

Members

Simmons, J. I., Dallas.

PICKENS COUNTY

Members

Atherton, H. G., Jasper.

PIKE COUNTY

Officers

President.....Beauchamp, J. C.
 Vice-President.....Head, D. L.
 Secy.-Treas.....Head, M. M.
 Delegate.....Head, M. M.

Members

Beauchamp, J. C., Williamson.
 Beauchamp, W. L., Williamson.
 Graves, J. R., Zebulon.
 Grubbs, J. H., Molena.
 Head, D. L., Zebulon.
 Head, J. M., Zebulon.
 Head, M. M., Zebulon.
 Howard, I. B., Williamson.
 Mallory, R. A., Concord.

POLK COUNTY

Officers

President.....McBride, H. M.
 Secy.-Treas.....Tison, W. W.
 (deceased)

Delegate.....Hall, H. M.

Members

Chaudron, P. O., Cedartown.
 Cooper, J. J., Cedartown.
 Hall, H. M., Cedartown.
 Howell, J. L., Aragon.
 McBride, T. E., Rockmart.
 Pennington, J. E., Esom Hill.
 Richardson, E. H., Cedartown.
 Tison, W. W., Cedartown, (de-
 ceased.)
 Whitely, S. L., Cedartown.

PUTNAM COUNTY

Officers

President.....Taliaferro, V. H.
 Vice-President.....Griffith, E. F.
 Secretary.....Clark, S. A.
 Delegate.....Clark, S. A.

Members

Clark, S. A., Eatonton.
 Griffith, E. F., Eatonton.
 Taliaferro, V. H., Eatonton.
 Walker, E. Y., Williard.

RANDOLPH COUNTY

Officers

President.....Ingram, H. R.
 Vice President.....GARY, Loren
 Secretary.....Moore, G. Y.
 Delegate.....Patterson, J. C.

Members

Binion, W. W., Benevolence.
 Crittenden, A. L., Shellman.
 Crook, W. W., Cuthbert.
 Gary, Loren, Georgetown.
 Harper, T. F., Coleman.
 Ingram, H. R., Coleman.
 Martin, F. M., Shellman.
 Moore, G. Y., Cuthbert.
 McCurdy, E. C., Shellman.
 McDonald, Annette, Cuthbert.
 Patterson, F. D., Cuthbert.
 Patterson, J. C., Cuthbert.
 Rogers, F. S., Coleman.
 Rogers, W. T., Coleman.
 Shepard, J. L., Carnegie.

RICHMOND COUNTY

Officers

President.....Coleman, T. D.
 Vice-President.....Montgomery, C. J.
 Secy.-Treas.....Gray, J. D.
 Delegates.....Mulherin, W. A.
 Bernard, G. T.

Members

Akerman, J., Augusta.
 Armstrong, R. M., Augusta.
 Baines, M. Carroll, Augusta.
 Baker, H. J., Augusta.
 Battey, W. W., Augusta.
 Bernard, G. T., Augusta.
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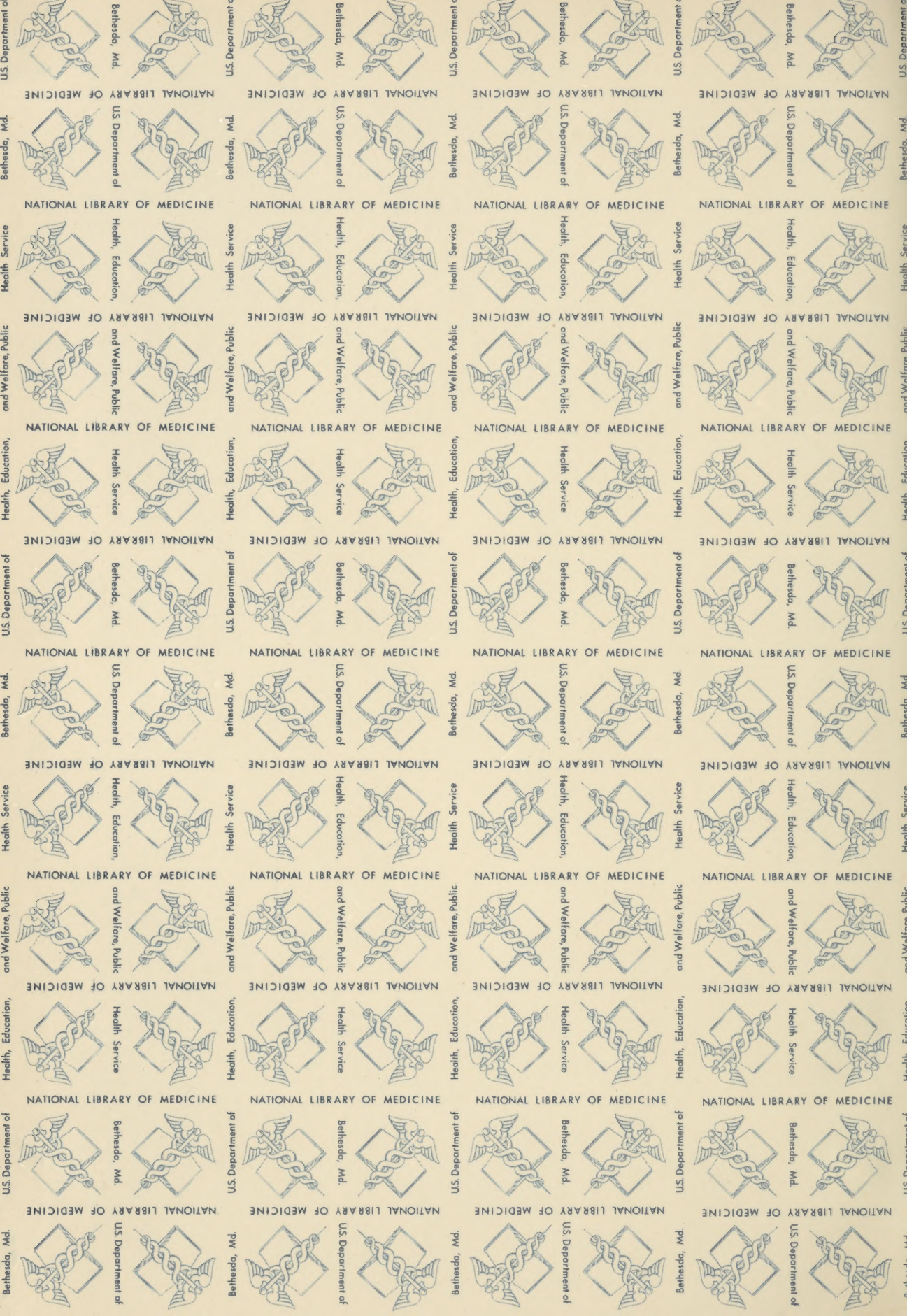
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